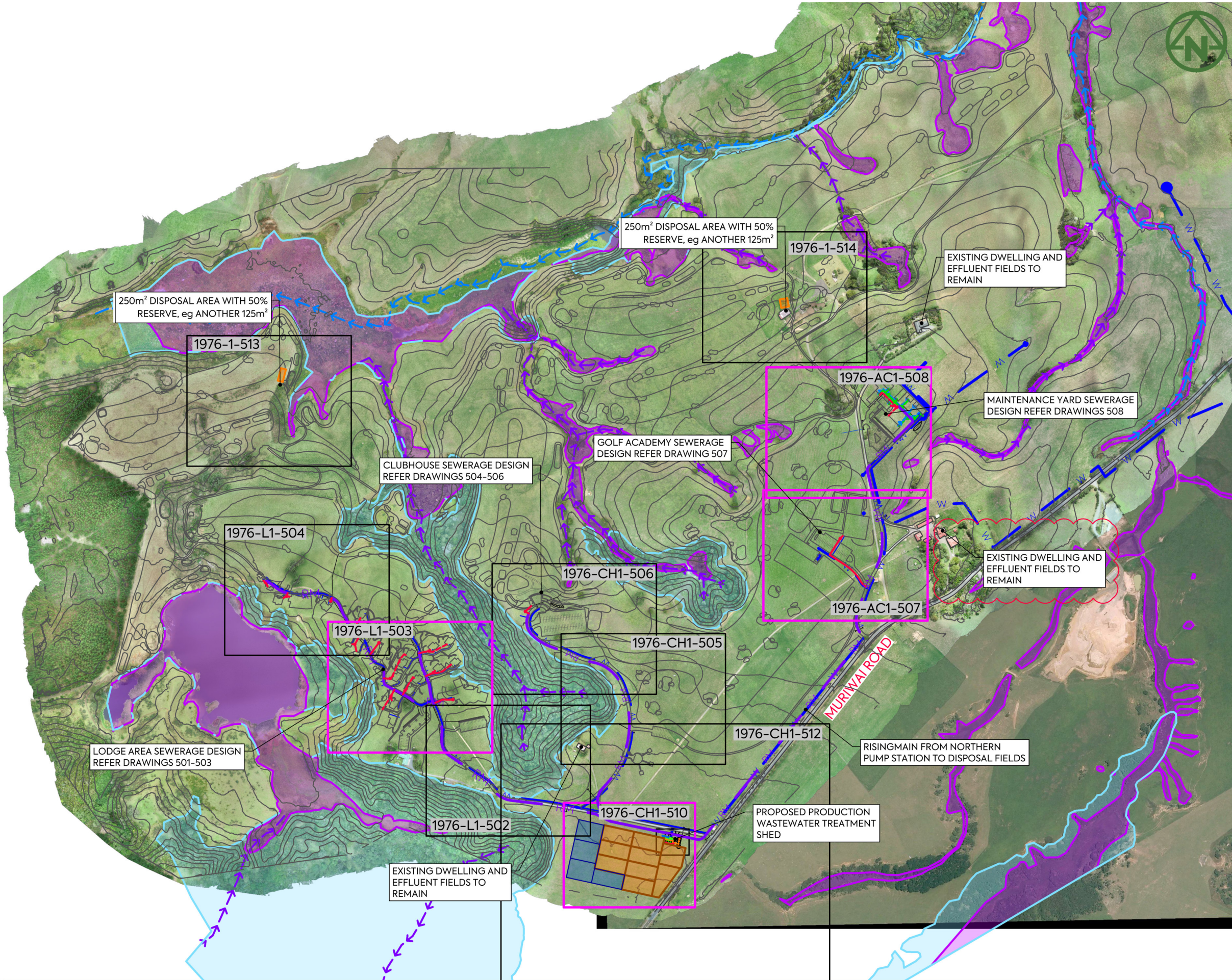


**NOTES:**

1. ALL WORKS AND MATERIALS ARE TO COMPLY WITH WATERCARE SERVICES LIMITED'S CODE OF PRACTICE FOR LAND DEVELOPMENTS AND SUBDIVISION.
2. ALL WASTEWATER LINE SIZES AND MATERIALS ARE SHOWN ON LONGSECTIONS IN THE 520-524 DRAWINGS.
3. ALL MANHOLES ARE TO BE 1050mm DIAMETER WITH HEAVY DUTY LIDS AND COVERS UNLESS SHOWN OTHERWISE ON THE LONGSECTIONS IN THE 520-524 DRAWINGS.
4. ALL PIPE CROSSINGS UNDER CARRIAGEWAYS/TRAFFIC AREAS TO BE HARDFILL BACKFILLED 1.0m BEYOND THE EXTENT OF THE CARRIAGEWAY.
5. ALL PIPE CROSSOVERS ARE TO BE HARDFILLED BACKFILLED 1.0m EITHER SIDE OF THE CROSSOVER.
6. PIPE CROSSOVERS ARE TO COMPLY WITH WATERCARE CODE OF PRACTICE TABLE 5.6. WHERE CROSSOVERS BETWEEN 150mm AND 300mm THE GAP IS TO BE POLYSTYRENE PACKED, IN ADDITION TO HARDFILLING CROSSOVERS. CROSS OVERS LESS THAN 150mm ARE NOT PERMITTED.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND ACCURATELY CONFIRM INVERT AND LID LEVELS OF EXISTING STORMWATER AND WASTEWATER MANHOLES PRIOR TO COMMENCING CONSTRUCTION. WHERE LEVELS DIFFER TO THOSE SHOWN THE CONTRACTOR SHALL ADVISE THE ENGINEER ACCORDINGLY.
8. THESE DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING SERVICES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY LOCATE AND PROTECT ALL EXISTING SERVICES DURING THE CONSTRUCTION PERIOD.
9. ALL LOT CONNECTIONS ARE TO BE 100mm DIAMETER uPVC SN16 UNLESS SHOWN OTHERWISE, AND DIMENSIONED FROM THE DOWNSTREAM MANHOLE. ALL LOT CONNECTIONS TO EXTEND INTO THE LOT AT MINIMUM GRADE AND EXTEND VERTICALLY TO TERMINATE 1.0m BELOW FINISHED GROUND LEVEL AND STAKED. THE CONNECTION DEPTH SHOULD BE SET THAT THERE IS 1200mm COVER BELOW THE LOWEST LOT PLATFORM LEVEL. REFER TO DRAWING WSL STANDARD DRAWINGS FOR DETAILS.
10. CONNECTIONS ARE TO BE AS-BUILT PRIOR TO TRENCH BACKFILLING.

**LEGEND:**

PROPOSED RISING MAIN	
PROPOSED DISPOSAL FIELD	
PROPOSED WASTEWATER CONNECTION	
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)	
PROPOSED STORMWATER PIPED NETWORK	
PROPOSED STORMWATER CULVERT ROAD CROSSING	
PROPOSED WATER SUPPLY	
PROPOSED WATER CONNECTION	
FINISHED (5m) MAJOR CONTOUR	
FINISHED (1m) MINOR CONTOUR	
EXISTING WETLANDS	
MAPPED SEA/ONF (BY ECOLOGIST)	

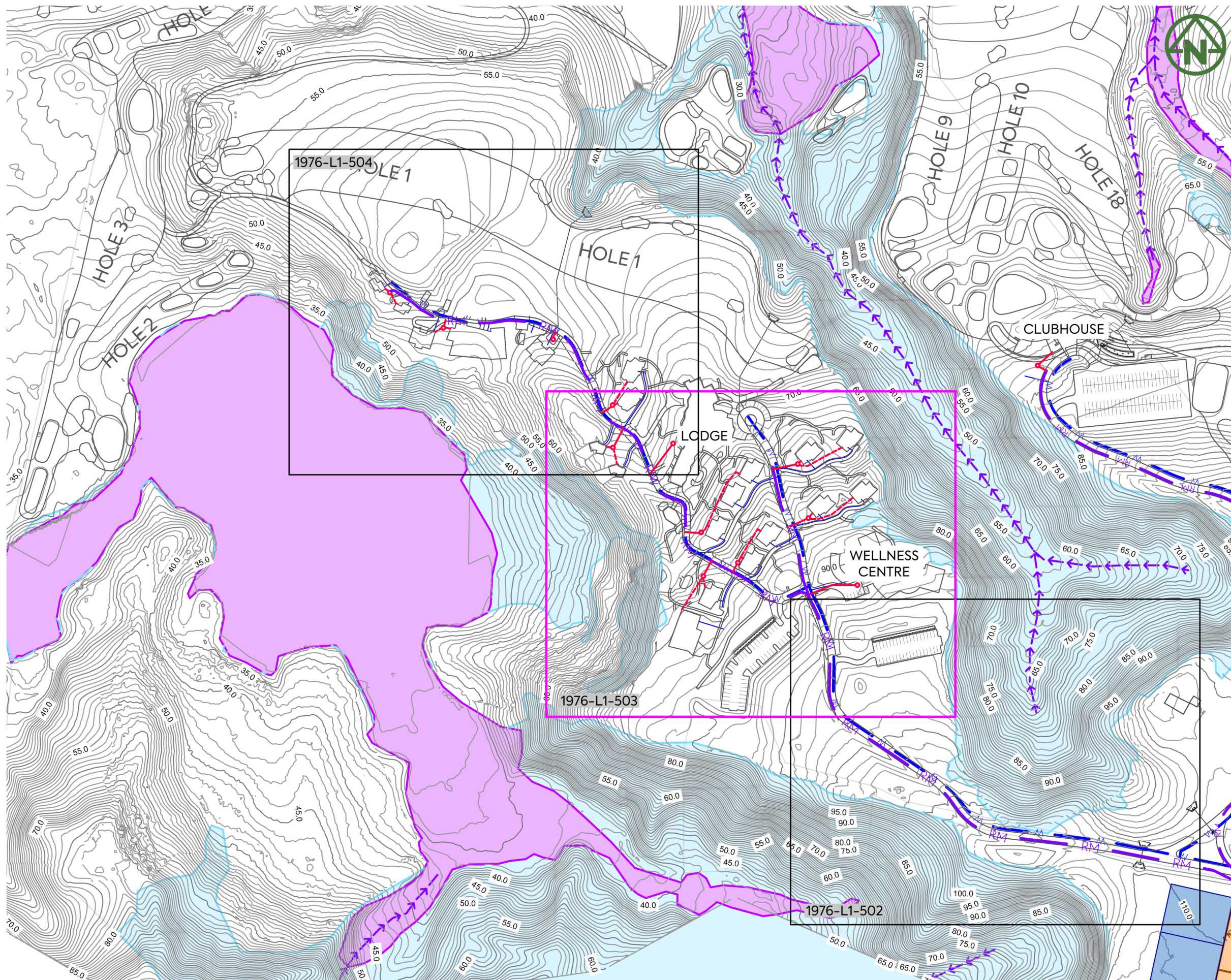


REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
F	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22
E	DISPOSAL FIELD UPDATED	SM	CH	JD	01/04/22
D	S92 RESPONSE	MO	CIM	JSD	04/03/22
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21
B	SECOND ISSUE	MO	CIM	JSD	05/11/21
A	FIRST ISSUE	MO	CIM	JSD	24/08/21



CLIENT: THE BEARS HOME PROJECT MANAGEMENT LTD  
 PROJECT: MURIWAI DOWNS GOLF PROJECT  
 610 & 697 MURIWAI ROAD  
 MURIWAI VALLEY

TITLE: PROPOSED DRAINAGE WASTEWATER NETWORK OVERALL PLAN  
 PURPOSE OF ISSUE: FOR CONSENT  
 SCALE: 1:7500  
 DO NOT SCALE  
 DRAWING NO: 1976-1-500  
 REV: F



**NOTES:**

1. ALL WORKS AND MATERIALS ARE TO COMPLY WITH WATERCARE SERVICES LIMITED'S CODE OF PRACTICE FOR LAND DEVELOPMENTS AND SUBDIVISION.
2. ALL WASTEWATER LINE SIZES AND MATERIALS ARE SHOWN ON LONGSECTIONS IN THE 520-524 DRAWINGS.
3. ALL MANHOLES ARE TO BE 1050mm DIAMETER WITH HEAVY DUTY LIDS AND COVERS UNLESS SHOWN OTHERWISE ON THE LONGSECTIONS IN THE 520-524 DRAWINGS.
4. ALL PIPE CROSSINGS UNDER CARRIAGEWAYS/TRAFFIC AREAS TO BE HARDFILL BACKFILLED 1.0m BEYOND THE EXTENT OF THE CARRIAGEWAY.
5. ALL PIPE CROSSOVERS ARE TO BE HARDFILLED BACKFILLED 1.0m EITHER SIDE OF THE CROSSOVER.
6. PIPE CROSSOVERS ARE TO COMPLY WITH WATERCARE CODE OF PRACTICE TABLE 5.6. WHERE CROSSOVERS BETWEEN 150mm AND 300mm THE GAP IS TO BE POLYSTYRENE PACKED, IN ADDITION TO HARDFILLING CROSSOVERS. CROSS OVERS LESS THAN 150mm ARE NOT PERMITTED.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND ACCURATELY CONFIRM INVERT AND LID LEVELS OF EXISTING STORMWATER AND WASTEWATER MANHOLES PRIOR TO COMMENCING CONSTRUCTION. WHERE LEVELS DIFFER TO THOSE SHOWN THE CONTRACTOR SHALL ADVISE THE ENGINEER ACCORDINGLY.
8. THESE DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING SERVICES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY LOCATE AND PROTECT ALL EXISTING SERVICES DURING THE CONSTRUCTION PERIOD.
9. ALL LOT CONNECTIONS ARE TO BE 100mm DIAMETER uPVC SN16 UNLESS SHOWN OTHERWISE, AND DIMENSIONED FROM THE DOWNSTREAM MANHOLE. ALL LOT CONNECTIONS TO EXTEND INTO THE LOT AT MINIMUM GRADE AND EXTEND VERTICALLY TO TERMINATE 1.0m BELOW FINISHED GROUND LEVEL AND STAKED. THE CONNECTION DEPTH SHOULD BE SET THAT THERE IS 1200mm COVER BELOW THE LOWEST LOT PLATFORM LEVEL. REFER TO DRAWING WSL STANDARD DRAWINGS FOR DETAILS.
10. CONNECTIONS ARE TO BE AS-BUILT PRIOR TO TRENCH BACKFILLING.

**LEGEND:**

PROPOSED RISING MAIN		RM
PROPOSED DISPOSAL FIELD		
PROPOSED WASTEWATER CONNECTION		
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)		XXm³ STEP
PROPOSED STORMWATER PIPED NETWORK		SW
PROPOSED STORMWATER CULVERT ROAD CROSSING		
PROPOSED WATER SUPPLY		W
PROPOSED WATER CONNECTION		
FINISHED (5m) MAJOR CONTOUR		75.0
FINISHED (1m) MINOR CONTOUR		
EXISTING WETLANDS		
MAPPED SEA/ONF (BY ECOLOGIST)		

CLIENT:	PROJECT:	TITLE:	PURPOSE OF ISSUE:																																					
THE BEARS HOME PROJECT MANAGEMENT LTD	MURIWAI DOWNS GOLF PROJECT 610 & 697 MURIWAI ROAD MURIWAI VALLEY	PROPOSED DRAINAGE WASTEWATER NETWORK GOLF LODGE OVERALL PLAN SHEET 1	FOR CONSENT																																					
<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> <tr> <td>D</td> <td>GRAVITY WW LINES REMOVED</td> <td>MO</td> <td>SM</td> <td>JD</td> <td>11/05/22</td> </tr> <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>	REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE	D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22	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>SCALE:</td> <td>1:4000</td> </tr> <tr> <td>DO NOT SCALE</td> <td></td> </tr> <tr> <td>DRAWING NO:</td> <td>1976-L1-501</td> </tr> <tr> <td>REV:</td> <td>D</td> </tr> </table>	SCALE:	1:4000	DO NOT SCALE		DRAWING NO:	1976-L1-501	REV:	D
REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE																																			
D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22																																			
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:	D																																							

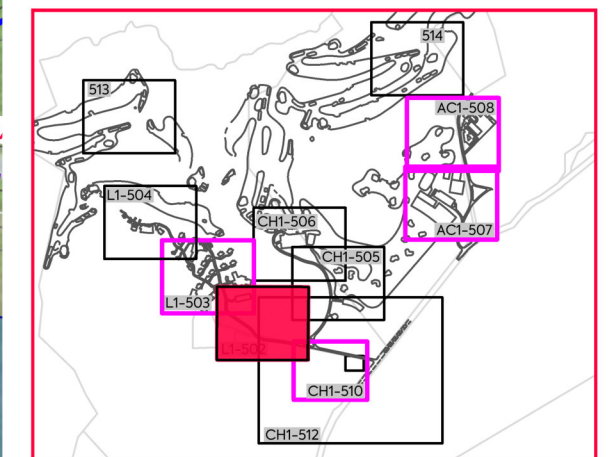


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN	RM
PROPOSED DISPOSAL FIELD	
PROPOSED WASTEWATER CONNECTION	
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)	XXm³ STEP
PROPOSED STORMWATER PIPED NETWORK	SW
PROPOSED STORMWATER CULVERT ROAD CROSSING	
PROPOSED WATER SUPPLY	W
PROPOSED WATER CONNECTION	
FINISHED (5m) MAJOR CONTOUR	
FINISHED (1m) MINOR CONTOUR	
EXISTING WETLANDS	
MAPPED SEA/ONF (BY ECOLOGIST)	



**DRAWING LAYOUT PLAN**

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22
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**

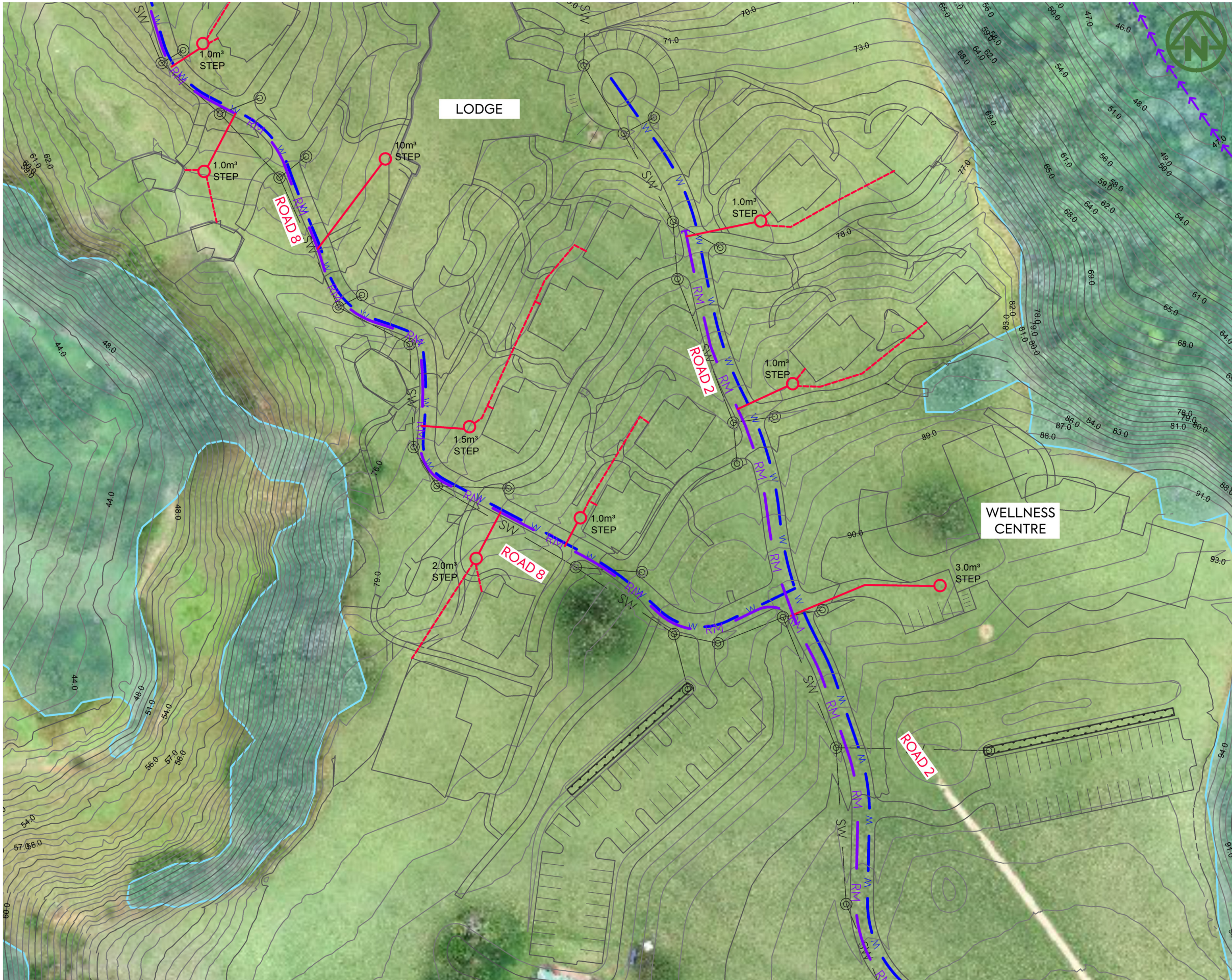
PROJECT:  
**MURIWAI DOWNS GOLF PROJECT  
 610 & 697 MURIWAI ROAD  
 MURIWAI VALLEY**

TITLE:  
**PROPOSED DRAINAGE  
 WASTEWATER NETWORK  
 GOLF CLUBHOUSE LAYOUT PLAN  
 SHEET 2**

PURPOSE OF ISSUE:  
**FOR CONSENT**

SCALE:  
**1:1000**  
 DO NOT SCALE

DRAWING NO.: **1976-CH1-502** REV: **D**

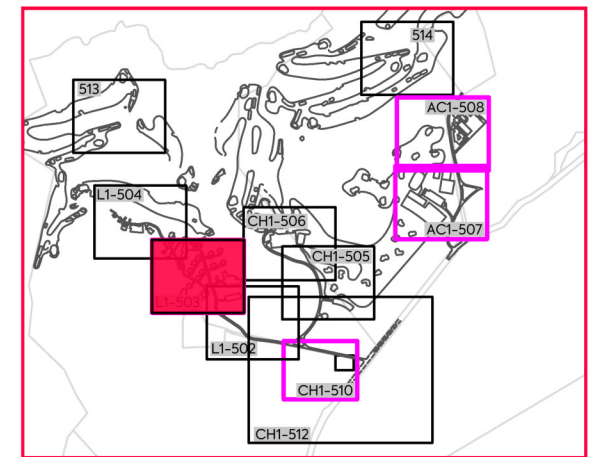


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN		RM
PROPOSED DISPOSAL FIELD		
PROPOSED WASTEWATER CONNECTION		
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)		XXm³ STEP
PROPOSED STORMWATER PIPED NETWORK		SW
PROPOSED STORMWATER CULVERT ROAD CROSSING		
PROPOSED WATER SUPPLY		W
PROPOSED WATER CONNECTION		
FINISHED (5m) MAJOR CONTOUR		75.0
FINISHED (1m) MINOR CONTOUR		
EXISTING WETLANDS		
MAPPED SEA/ONF (BY ECOLOGIST)		



**DRAWING LAYOUT PLAN**

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22
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 DRAINAGE WASTEWATER NETWORK  
GOLF LODGE LAYOUT PLAN  
SHEET 3

PURPOSE OF ISSUE: FOR CONSENT  
SCALE: 1:1000  
DO NOT SCALE  
DRAWING NO: 1976-L1-503  
REV: D

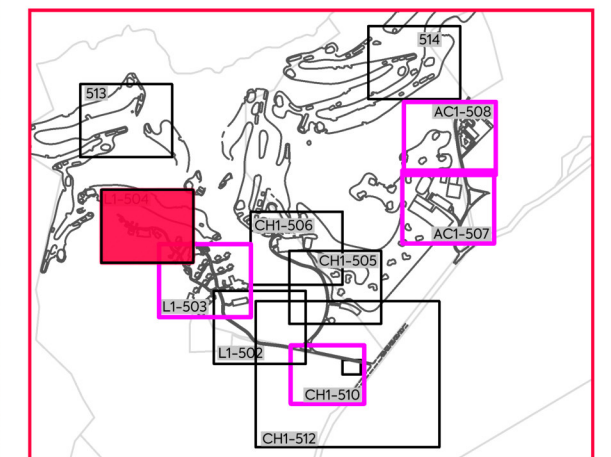


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN		RM
PROPOSED DISPOSAL FIELD		
PROPOSED WASTEWATER CONNECTION		
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)		XXm³ STEP
PROPOSED STORMWATER PIPED NETWORK		SW
PROPOSED STORMWATER CULVERT ROAD CROSSING		
PROPOSED WATER SUPPLY		W
PROPOSED WATER CONNECTION		
FINISHED (5m) MAJOR CONTOUR		75.0
FINISHED (1m) MINOR CONTOUR		
EXISTING WETLANDS		
MAPPED SEA/ONF (BY ECOLOGIST)		



**DRAWING LAYOUT PLAN**

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22
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 DRAINAGE WASTEWATER NETWORK  
GOLF LODGE LAYOUT PLAN  
SHEET 4

PURPOSE OF ISSUE: FOR CONSENT  
SCALE: 1:1000  
DO NOT SCALE  
DRAWING NO: 1976-L1-504  
REV: D

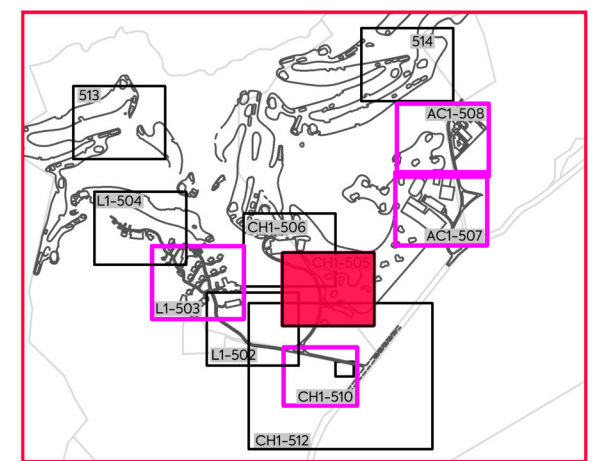
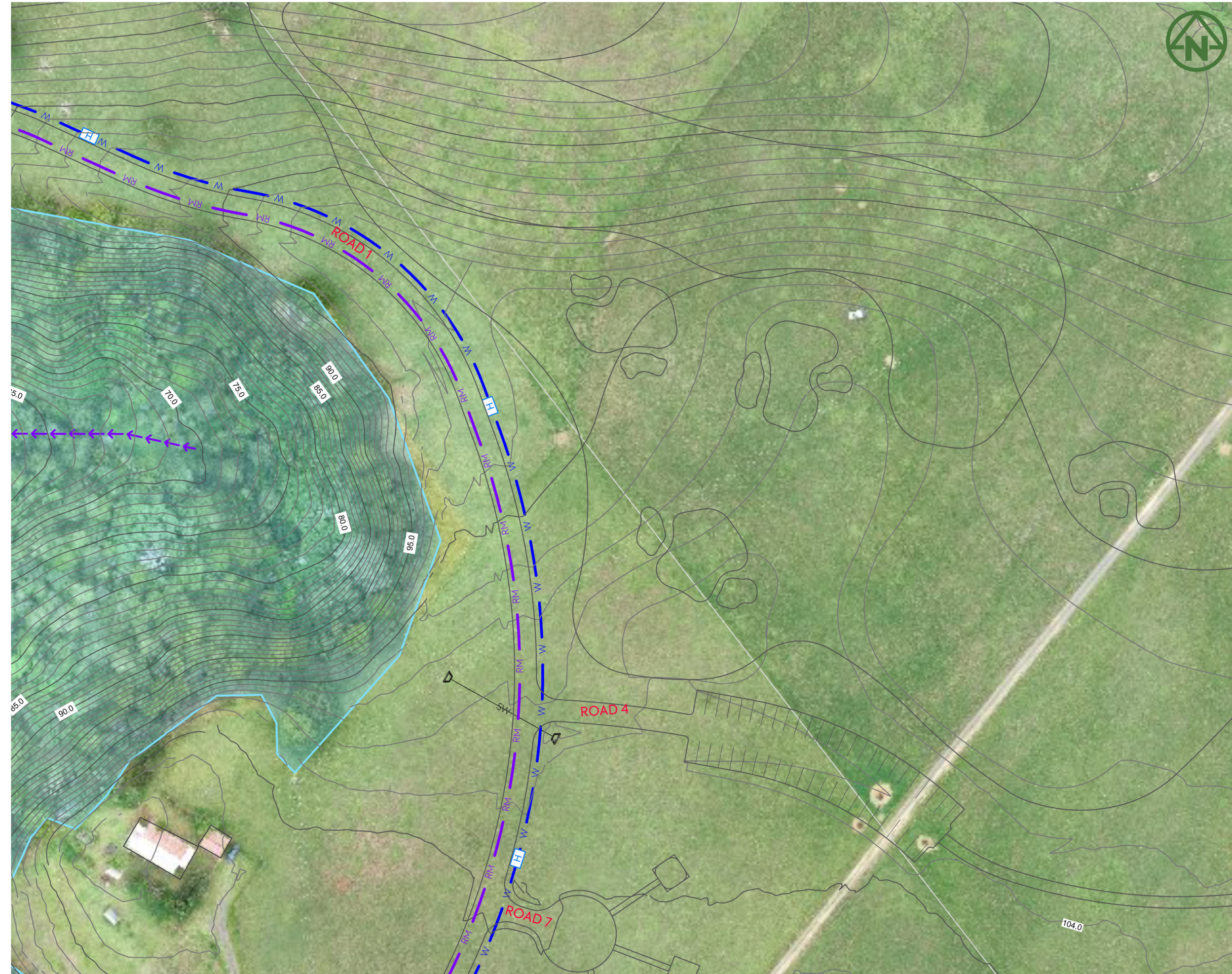


**NOTES:**

- 1. REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

- PROPOSED RISING MAIN
- PROPOSED DISPOSAL FIELD
- PROPOSED WASTEWATER CONNECTION
- PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)
- PROPOSED STORMWATER PIPED NETWORK
- PROPOSED STORMWATER CULVERT ROAD CROSSING
- PROPOSED WATER SUPPLY
- PROPOSED WATER CONNECTION
- FINISHED (5m) MAJOR CONTOUR
- FINISHED (1m) MINOR CONTOUR
- EXISTING WETLANDS
- MAPPED SEA/ONF (BY ECOLOGIST)



**DRAWING LAYOUT PLAN**

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22
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

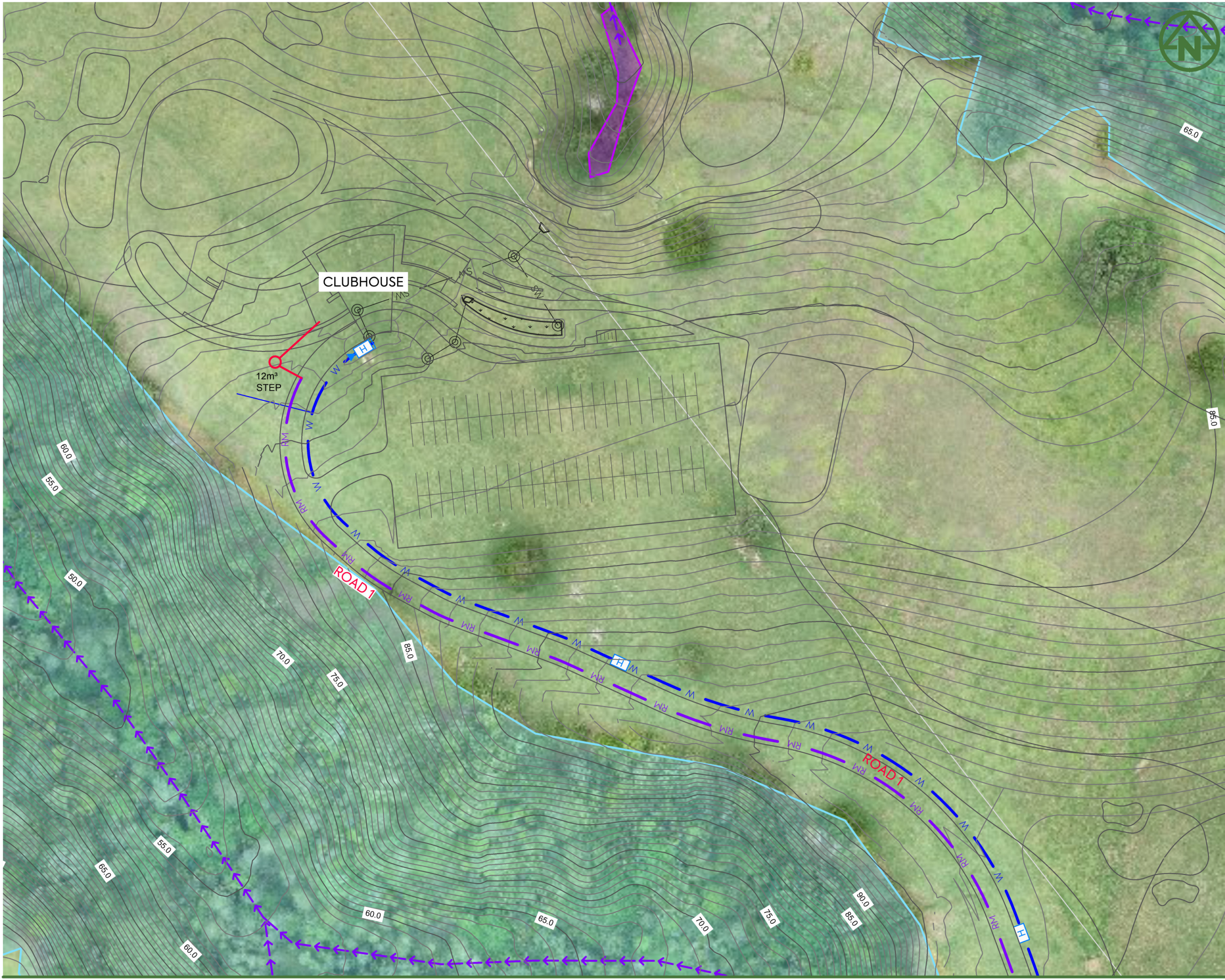


CLIENT: THE BEARS HOME PROJECT MANAGEMENT LTD

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

TITLE: PROPOSED DRAINAGE WASTEWATER NETWORK  
GOLF CLUBHOUSE LAYOUT PLAN  
SHEET 5

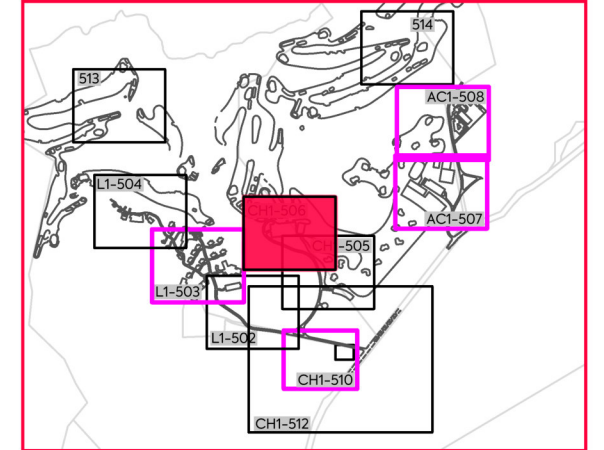
PURPOSE OF ISSUE: FOR CONSENT  
SCALE: 1:1000  
DO NOT SCALE  
DRAWING NO: 1976-CH1-505  
REV: D



**NOTES:**  
 1. REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN	RM
PROPOSED DISPOSAL FIELD	
PROPOSED WASTEWATER CONNECTION	
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)	XXm³ STEP
PROPOSED STORMWATER PIPED NETWORK	SW
PROPOSED STORMWATER CULVERT ROAD CROSSING	
PROPOSED WATER SUPPLY	W
PROPOSED WATER CONNECTION	
FINISHED (5m) MAJOR CONTOUR	75.0
FINISHED (1m) MINOR CONTOUR	
EXISTING WETLANDS	
MAPPED SEA/ONF (BY ECOLOGIST)	



**DRAWING LAYOUT PLAN**

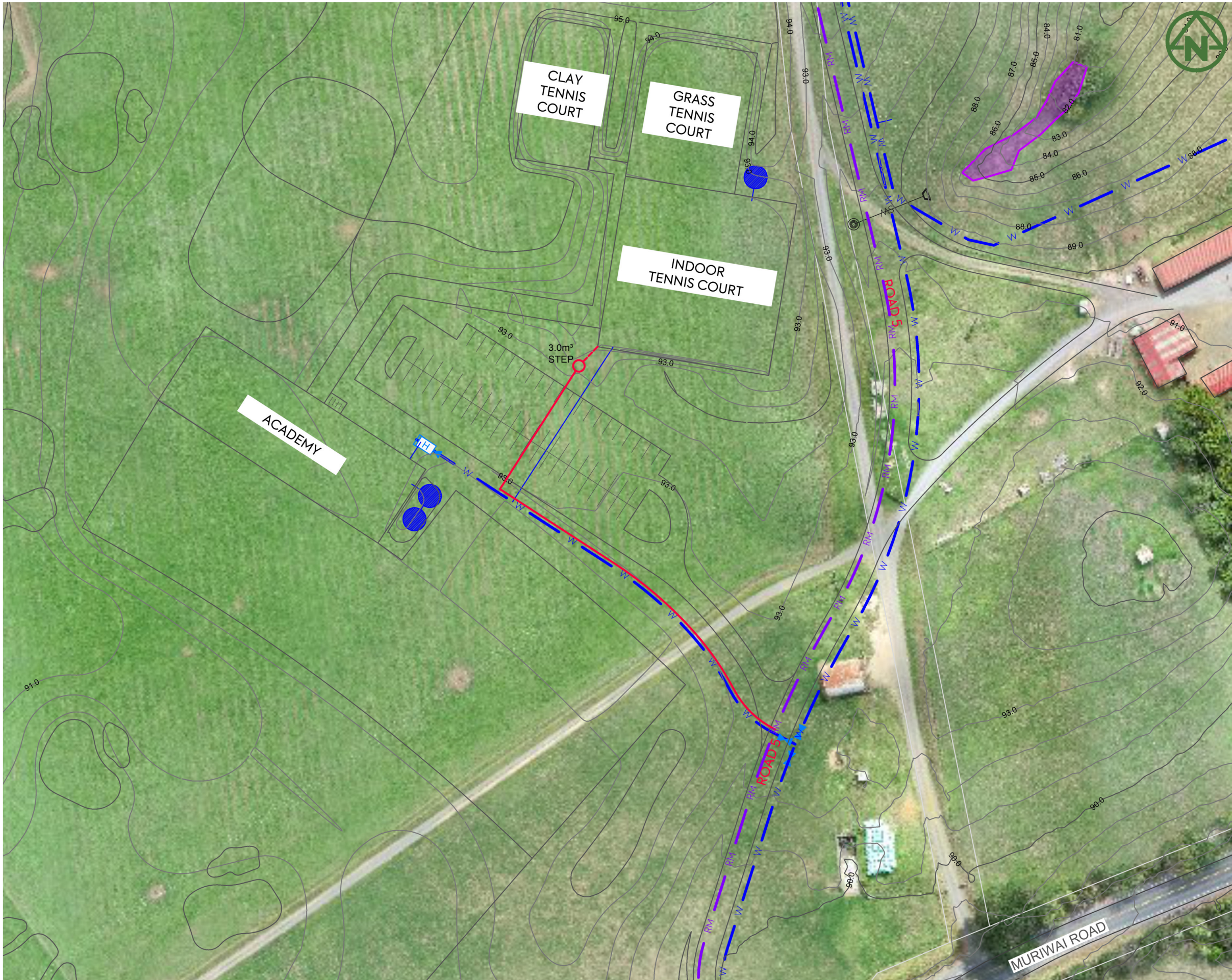
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D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21
B	SECOND ISSUE	MO	CIM	JSD	05/11/21
A	FIRST ISSUE	MO	CIM	JSD	24/08/21



CLIENT: THE BEARS HOME PROJECT MANAGEMENT LTD  
 PROJECT: MURIWAI DOWNS GOLF PROJECT  
 610 & 697 MURIWAI ROAD  
 MURIWAI VALLEY

TITLE: PROPOSED DRAINAGE WASTEWATER NETWORK  
 GOLF CLUBHOUSE LAYOUT PLAN  
 SHEET 6

PURPOSE OF ISSUE: FOR CONSENT  
 SCALE: 1:1000  
 DO NOT SCALE  
 DRAWING NO: 1976-CH1-506  
 REV: D

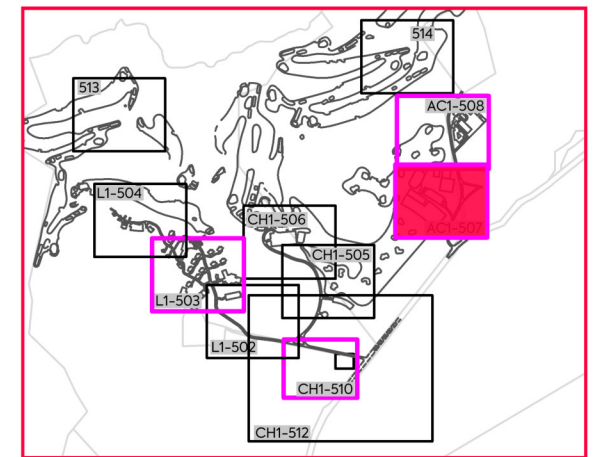


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN		RM
PROPOSED DISPOSAL FIELD		
PROPOSED WASTEWATER CONNECTION		
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)		XXm³ STEP
PROPOSED STORMWATER PIPED NETWORK		SW
PROPOSED STORMWATER CULVERT ROAD CROSSING		
PROPOSED WATER SUPPLY		W
PROPOSED WATER CONNECTION		
FINISHED (5m) MAJOR CONTOUR		75.0
FINISHED (1m) MINOR CONTOUR		
EXISTING WETLANDS		
MAPPED SEA/ONF (BY ECOLOGIST)		



**DRAWING LAYOUT PLAN**

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22
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 DRAINAGE WASTEWATER NETWORK  
GOLF ACADEMY LAYOUT PLAN  
SHEET 7

PURPOSE OF ISSUE: FOR CONSENT  
SCALE: 1:1000  
DO NOT SCALE  
DRAWING NO: 1976-AC1-507  
REV: D



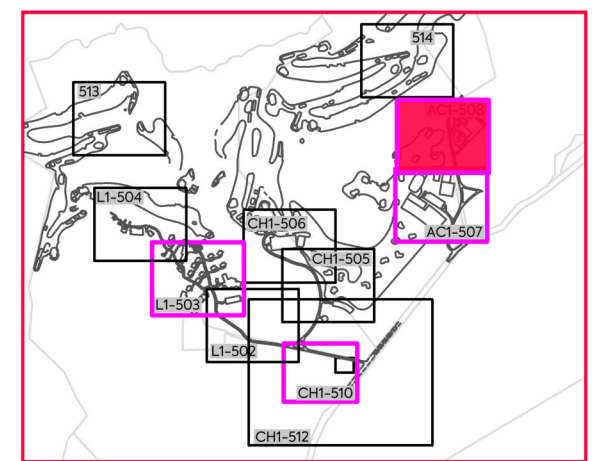


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

- PROPOSED RISING MAIN — RM —
- PROPOSED DISPOSAL FIELD —
- PROPOSED WASTEWATER CONNECTION —
- PROPOSED WASTEWATER TREATMENT (SEPTIC TANK) ○ XXm³ STEP
- PROPOSED STORMWATER PIPED NETWORK — SW —
- PROPOSED STORMWATER CULVERT ROAD CROSSING —
- PROPOSED WATER SUPPLY — W —
- PROPOSED WATER CONNECTION —
- FINISHED (5m) MAJOR CONTOUR — 75.0 —
- FINISHED (1m) MINOR CONTOUR —
- EXISTING WETLANDS —
- MAPPED SEA/ONF (BY ECOLOGIST) —



**DRAWING LAYOUT PLAN**

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
D	GRAVITY WW LINES REMOVED	MO	SM	JD	11/05/22
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  
 TITLE: PROPOSED DRAINAGE WASTEWATER NETWORK GOLF ACADEMY LAYOUT PLAN SHEET 8

610 & 697 MURIWAI ROAD  
 MURIWAI VALLEY

PURPOSE OF ISSUE: FOR CONSENT  
 SCALE: 1:1000  
 DO NOT SCALE  
 DRAWING NO: 1976-AC1-508  
 REV: D



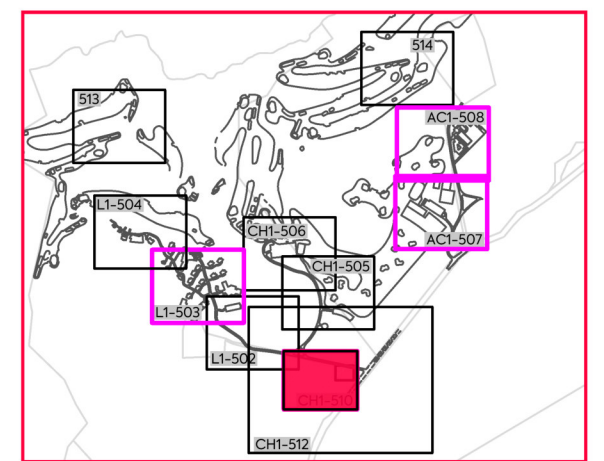
**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

- PROPOSED RISING MAIN — RM —
- PROPOSED DISPOSAL FIELD
- PROPOSED WASTEWATER CONNECTION
- PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)  XXm<sup>3</sup> STEP
- PROPOSED STORMWATER PIPED NETWORK  SW
- PROPOSED STORMWATER CULVERT ROAD CROSSING
- PROPOSED WATER SUPPLY  W
- PROPOSED WATER CONNECTION
- FINISHED (5m) MAJOR CONTOUR  75.0
- FINISHED (1m) MINOR CONTOUR
- EXISTING WETLANDS
- MAPPED SEA/ONF (BY ECOLOGIST)
- OVERLAND FLOWPATH → → → →

1976-L1-504A - MANHOLE DETAIL



**DRAWING LAYOUT PLAN**

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
F	DISPOSAL FIELD UPDATED	MO	SM	JD	11/05/22
E	DISPOSAL AREA REVISED	SM	CH	JD	01/04/22
D	S92 RESPONSE	MO	CIM	JSD	04/03/22
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 DRAINAGE  
WASTEWATER NETWORK  
GOLF CLUBHOUSE LAYOUT PLAN  
SHEET 9**

PURPOSE OF ISSUE:  
**FOR CONSENT**

SCALE:  
**1:500**

DO NOT SCALE

DRAWING NO.: **1976-CH1-510**

REV: **F**

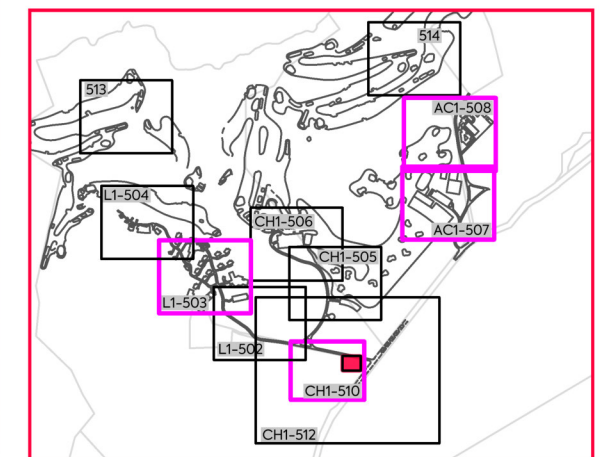


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN		RM
PROPOSED DISPOSAL FIELD		
PROPOSED WASTEWATER CONNECTION		
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)		XXm <sup>3</sup> STEP
PROPOSED STORMWATER PIPED NETWORK		SW
PROPOSED STORMWATER CULVERT ROAD CROSSING		
PROPOSED WATER SUPPLY		W
PROPOSED WATER CONNECTION		
FINISHED (5m) MAJOR CONTOUR		75.0
FINISHED (1m) MINOR CONTOUR		
EXISTING WETLANDS		
MAPPED SEA/ONF (BY ECOLOGIST)		



**DRAWING LAYOUT PLAN**

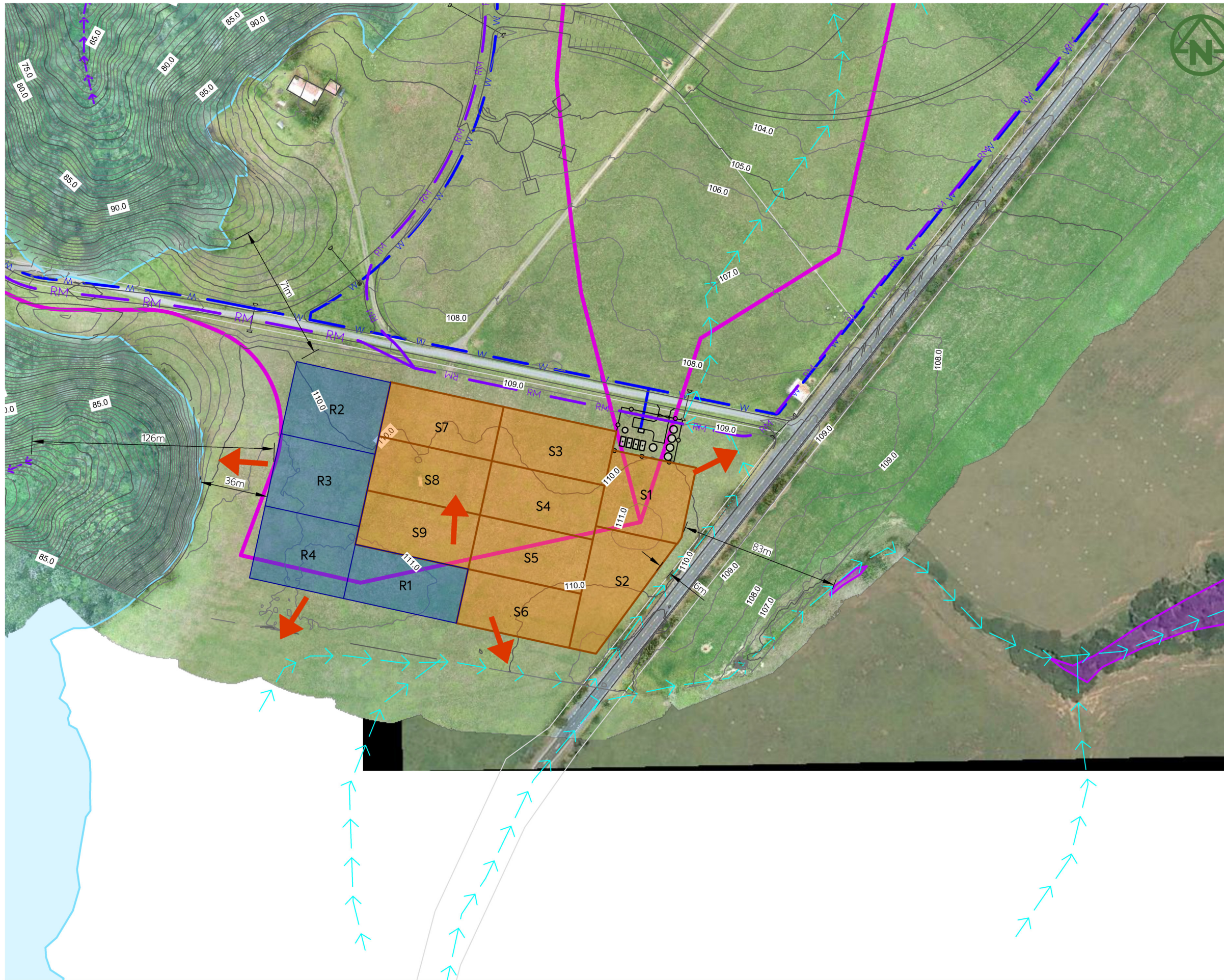
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E	DISPOSAL FIELD UPDATED	MO	CIM	SM	11/05/22
D	S92 RESPONSE	MO	CIM	JSD	04/03/22
C	ISSUED FOR CONSENT	MO	CIM	JSD	26/11/21
B	SECOND ISSUE	MO	CIM	JSD	05/11/21
A	FIRST ISSUE	MO	CIM	JSD	24/08/21



CLIENT: THE BEARS HOME PROJECT MANAGEMENT LTD  
 PROJECT: MURIWAI DOWNS GOLF PROJECT  
 610 & 697 MURIWAI ROAD  
 MURIWAI VALLEY

TITLE: CONCEPTUAL LAYOUT OF WASTEWATER TREATMENT PLAN  
 SHEET 10

PURPOSE OF ISSUE: FOR CONSENT  
 SCALE: 1:200  
 DO NOT SCALE  
 DRAWING NO: 1976-CH1-511  
 REV: E

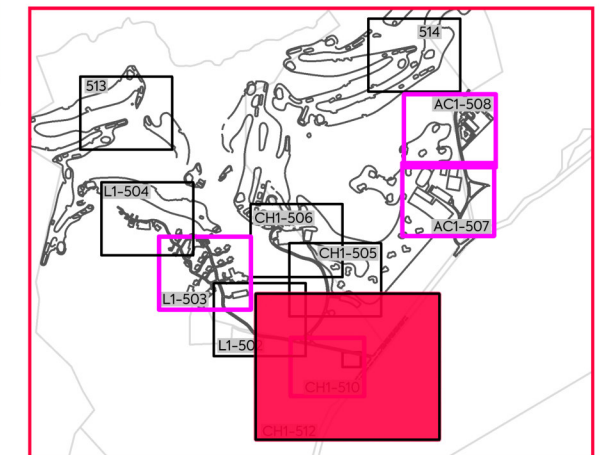


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN	RM
PROPOSED DISPOSAL FIELD	
PROPOSED WASTEWATER CONNECTION	
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)	XXm <sup>3</sup> STEP
PROPOSED STORMWATER PIPED NETWORK	SW
PROPOSED STORMWATER CULVERT ROAD CROSSING	
PROPOSED WATER SUPPLY	W
PROPOSED WATER CONNECTION	
FINISHED (5m) MAJOR CONTOUR	75.0
FINISHED (1m) MINOR CONTOUR	
EXISTING WETLANDS	
MAPPED SEA/ONF (BY ECOLOGIST)	
OVERLAND FLOWPATH	
CATCHMENT BOUNDARY (POST DEVELOPMENT)	



**DRAWING LAYOUT PLAN**

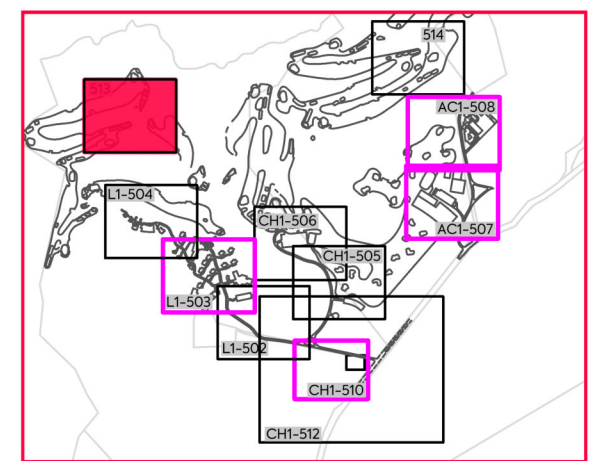


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN		RM
PROPOSED DISPOSAL FIELD		
PROPOSED WASTEWATER CONNECTION		
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)		XXm <sup>3</sup> STEP
PROPOSED STORMWATER PIPED NETWORK		SW
PROPOSED STORMWATER CULVERT ROAD CROSSING		
PROPOSED WATER SUPPLY		W
PROPOSED WATER CONNECTION		
FINISHED (5m) MAJOR CONTOUR		75.0
FINISHED (1m) MINOR CONTOUR		
EXISTING WETLANDS		
MAPPED SEA/ONF (BY ECOLOGIST)		



**DRAWING LAYOUT PLAN**

CLIENT:	PROJECT:	TITLE:	PURPOSE OF ISSUE:
THE BEARS HOME PROJECT MANAGEMENT LTD	MURIWAI DOWNS GOLF PROJECT 610 & 697 MURIWAI ROAD MURIWAI VALLEY	PROPOSED DRAINAGE WASTEWATER NETWORK LAYOUT PLAN SHEET 12	FOR CONSENT
SCALE: 1:1000 DO NOT SCALE			REV: A
DRAWING NO: 1976-1-513			



A	FIRST ISSUE	MO	SM	JSD	
REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE

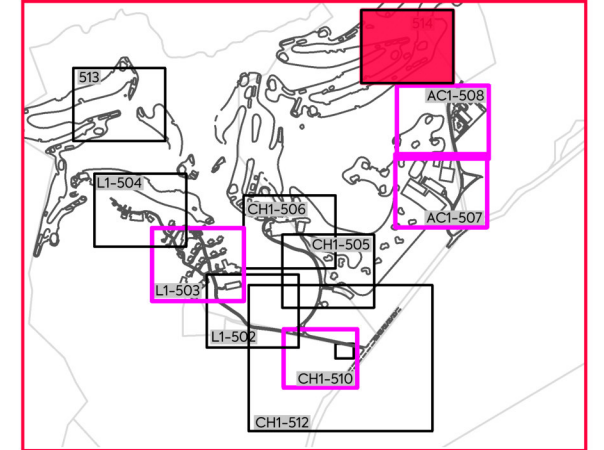


**NOTES:**

- REFER TO DRAWING 1976-1-500 FOR STANDARD WASTEWATER NOTES.

**LEGEND:**

PROPOSED RISING MAIN		RM
PROPOSED DISPOSAL FIELD		
PROPOSED WASTEWATER CONNECTION		
PROPOSED WASTEWATER TREATMENT (SEPTIC TANK)		XXm <sup>3</sup> STEP
PROPOSED STORMWATER PIPED NETWORK		SW
PROPOSED STORMWATER CULVERT ROAD CROSSING		
PROPOSED WATER SUPPLY		W
PROPOSED WATER CONNECTION		
FINISHED (5m) MAJOR CONTOUR		75.0
FINISHED (1m) MINOR CONTOUR		
EXISTING WETLANDS		
MAPPED SEA/ONF (BY ECOLOGIST)		

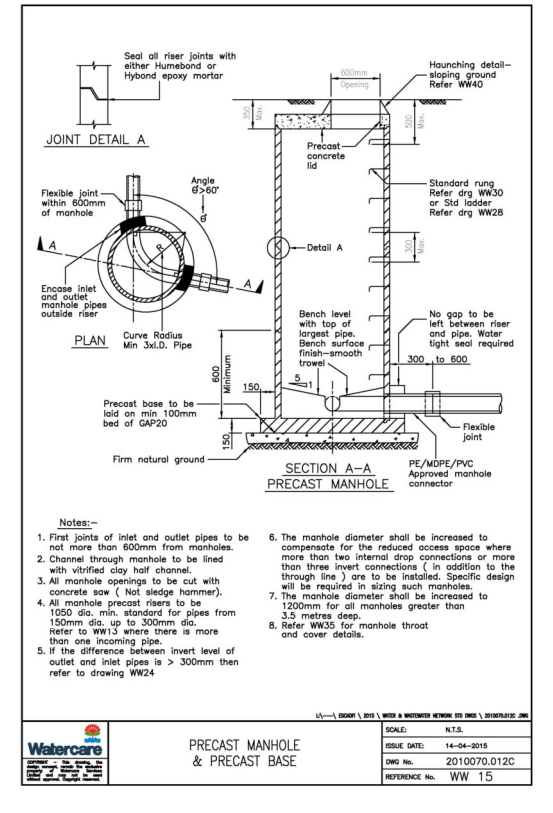
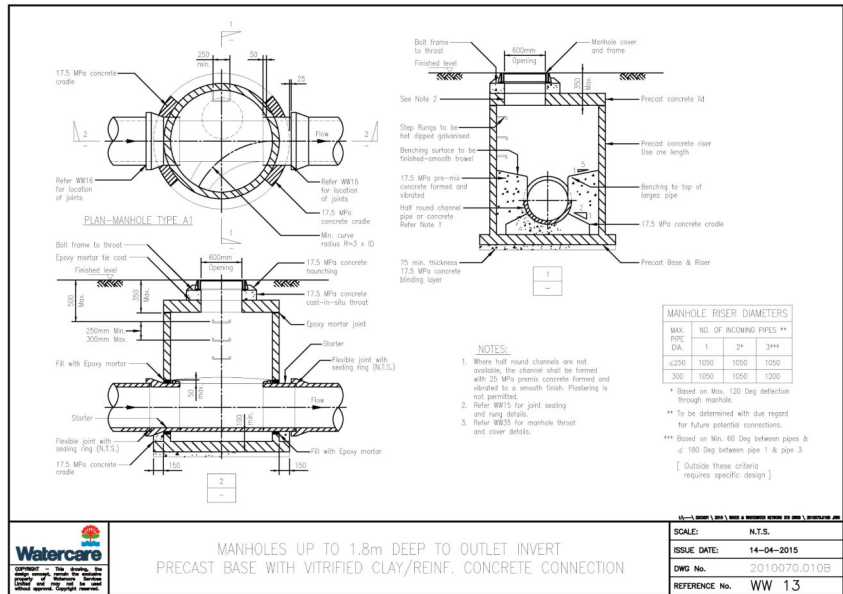
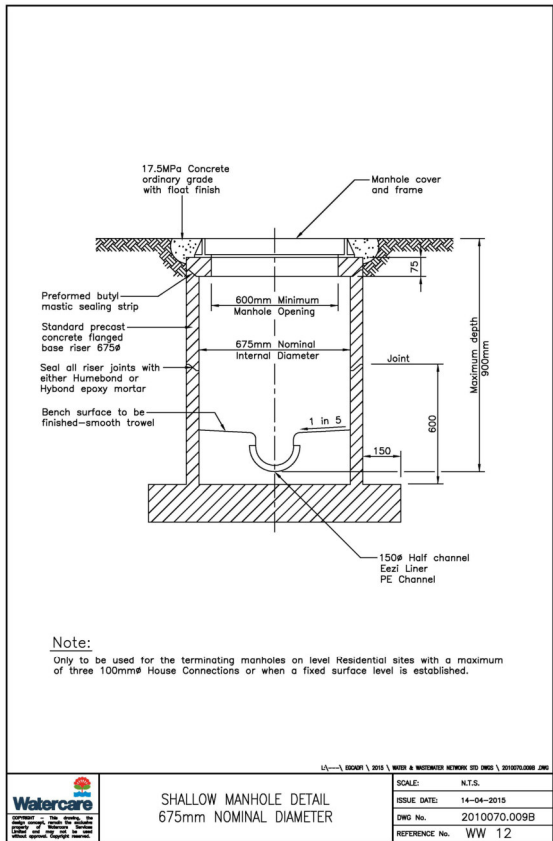
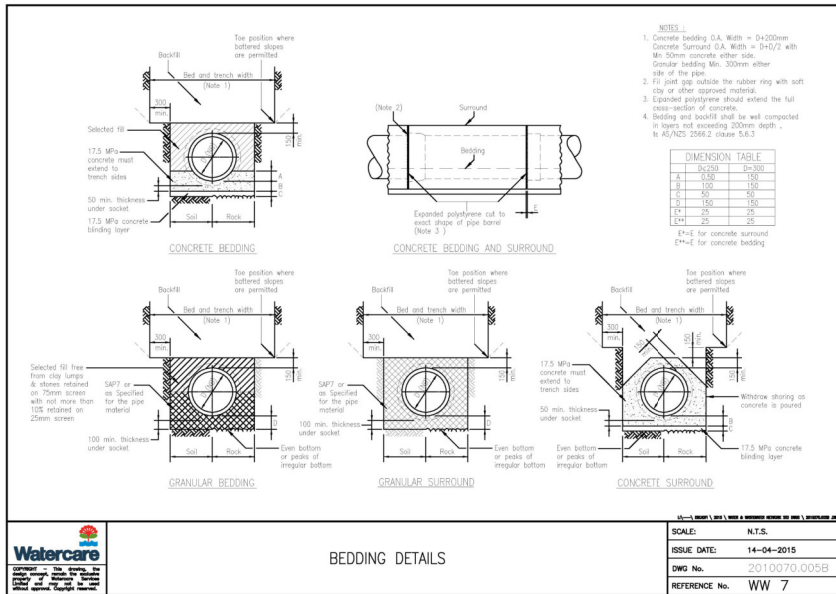
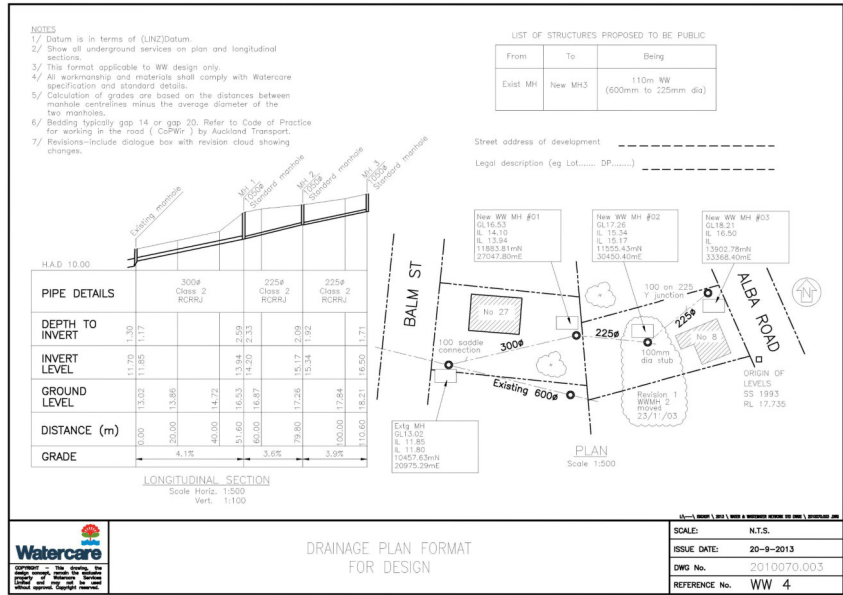
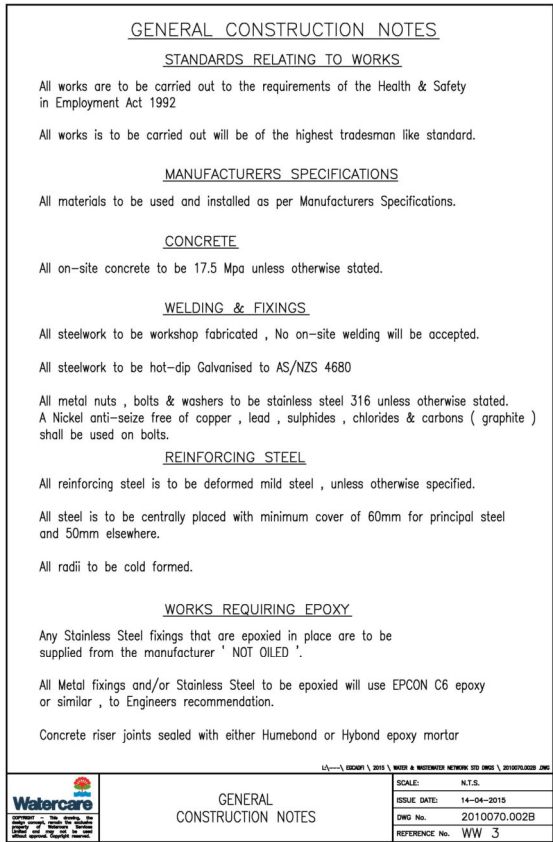
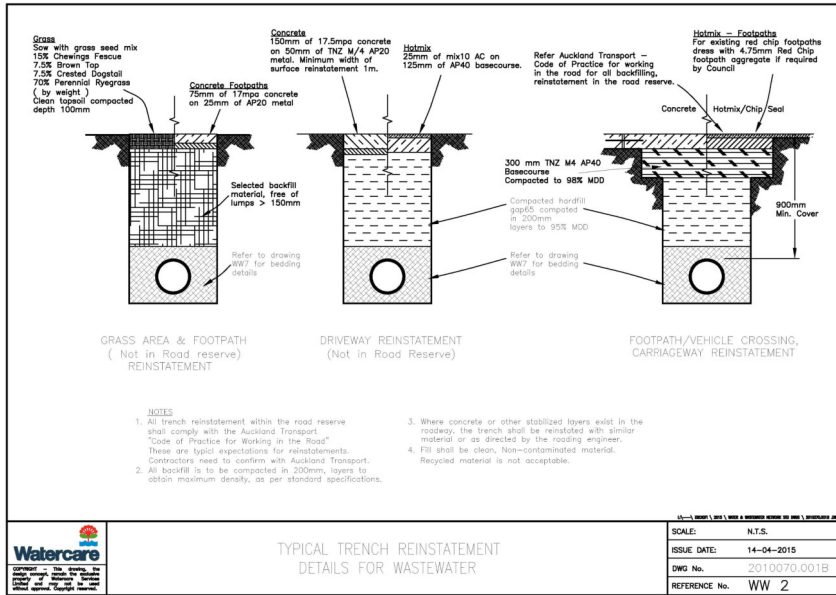


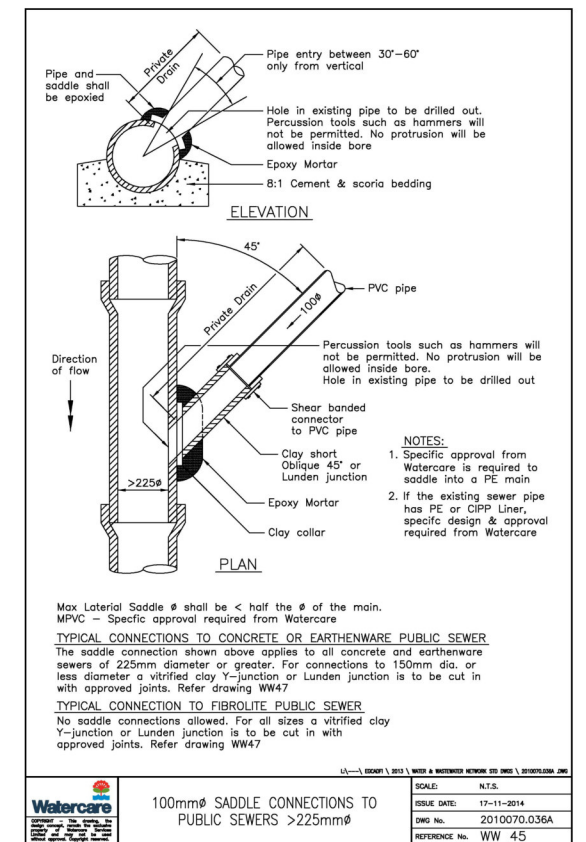
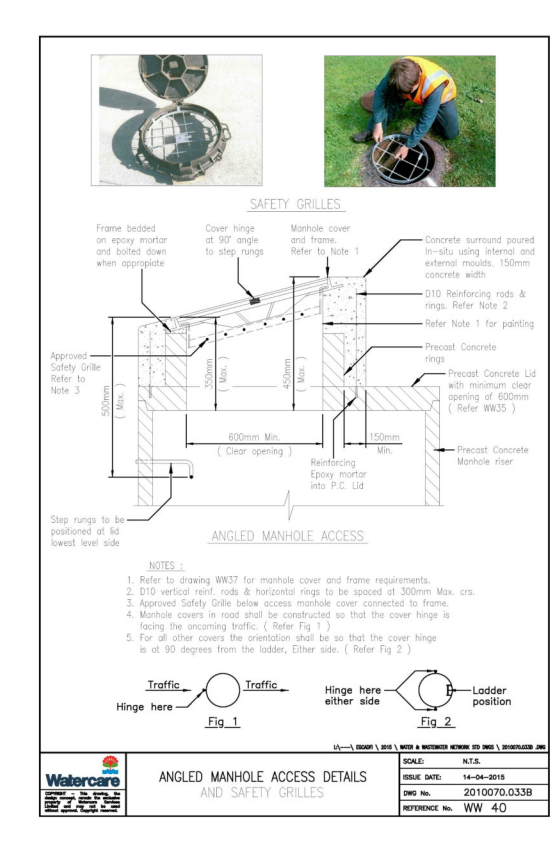
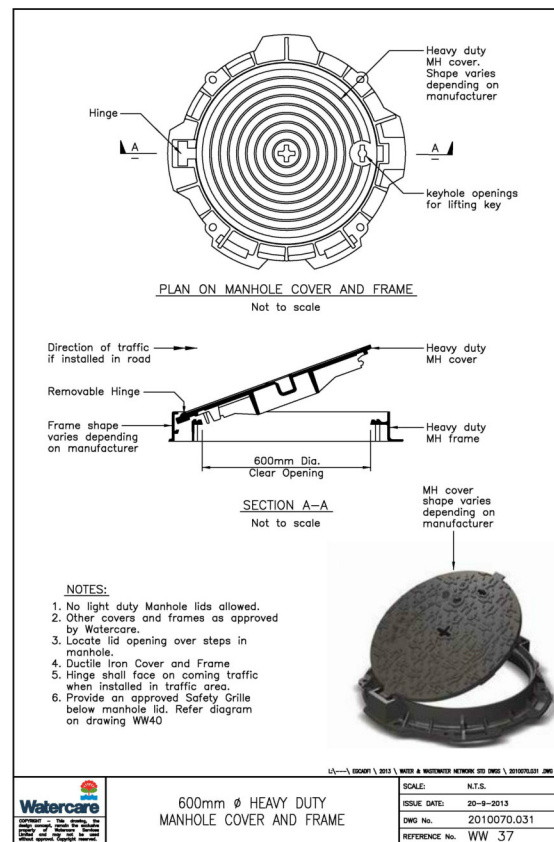
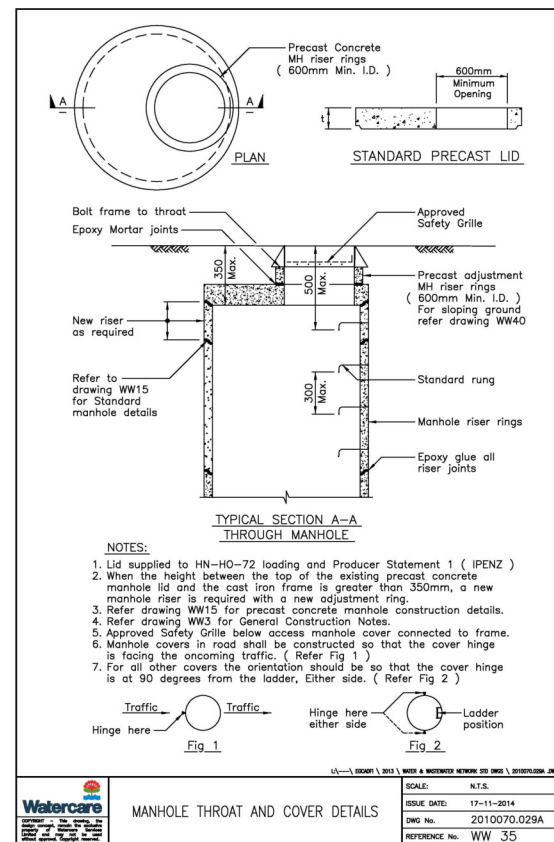
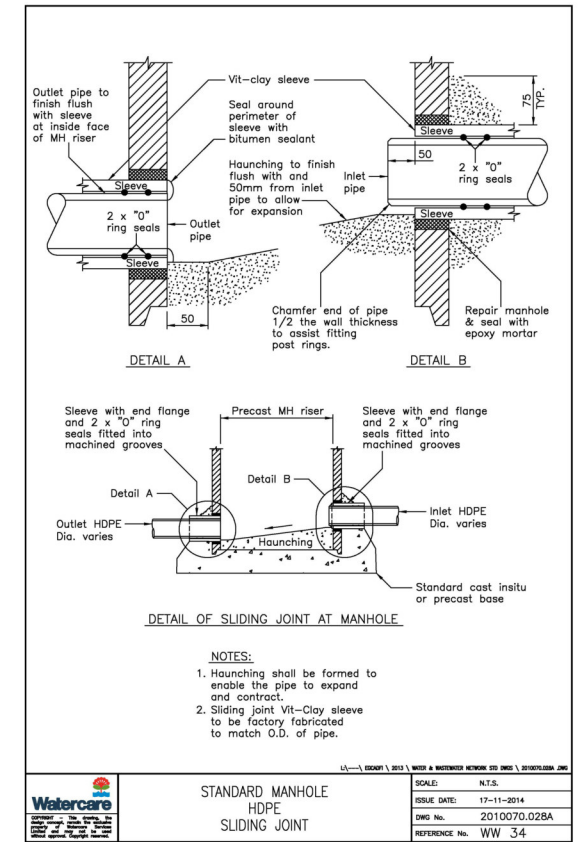
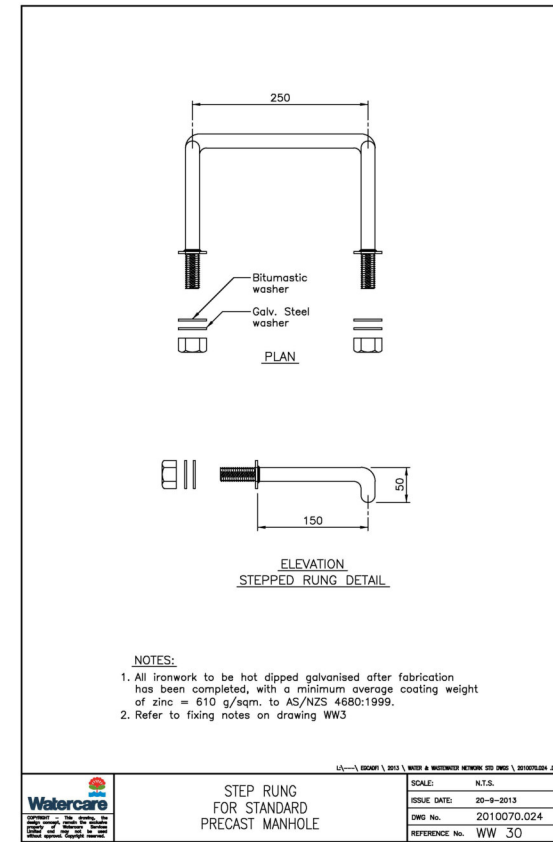
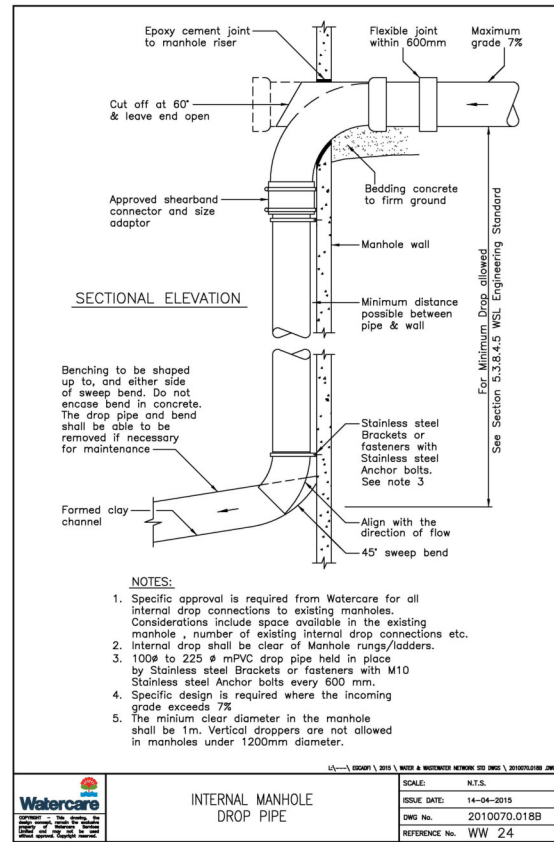
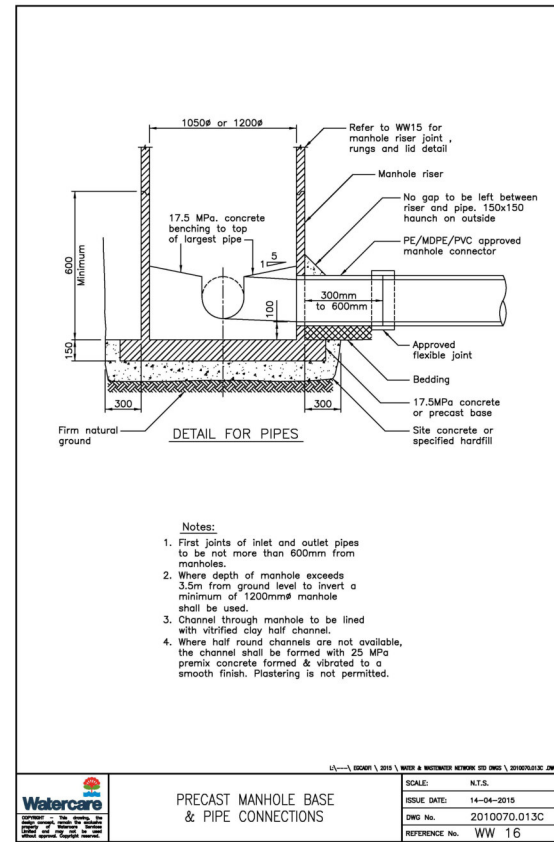
**DRAWING LAYOUT PLAN**

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 DRAINAGE WASTEWATER NETWORK LAYOUT PLAN SHEET 13</b>	PURPOSE OF ISSUE: <b>FOR CONSENT</b>
			SCALE: <b>1:1000</b> <small>DO NOT SCALE</small>
			DRAWING NO.: <b>1976-1-514</b>
			REV: <b>A</b>

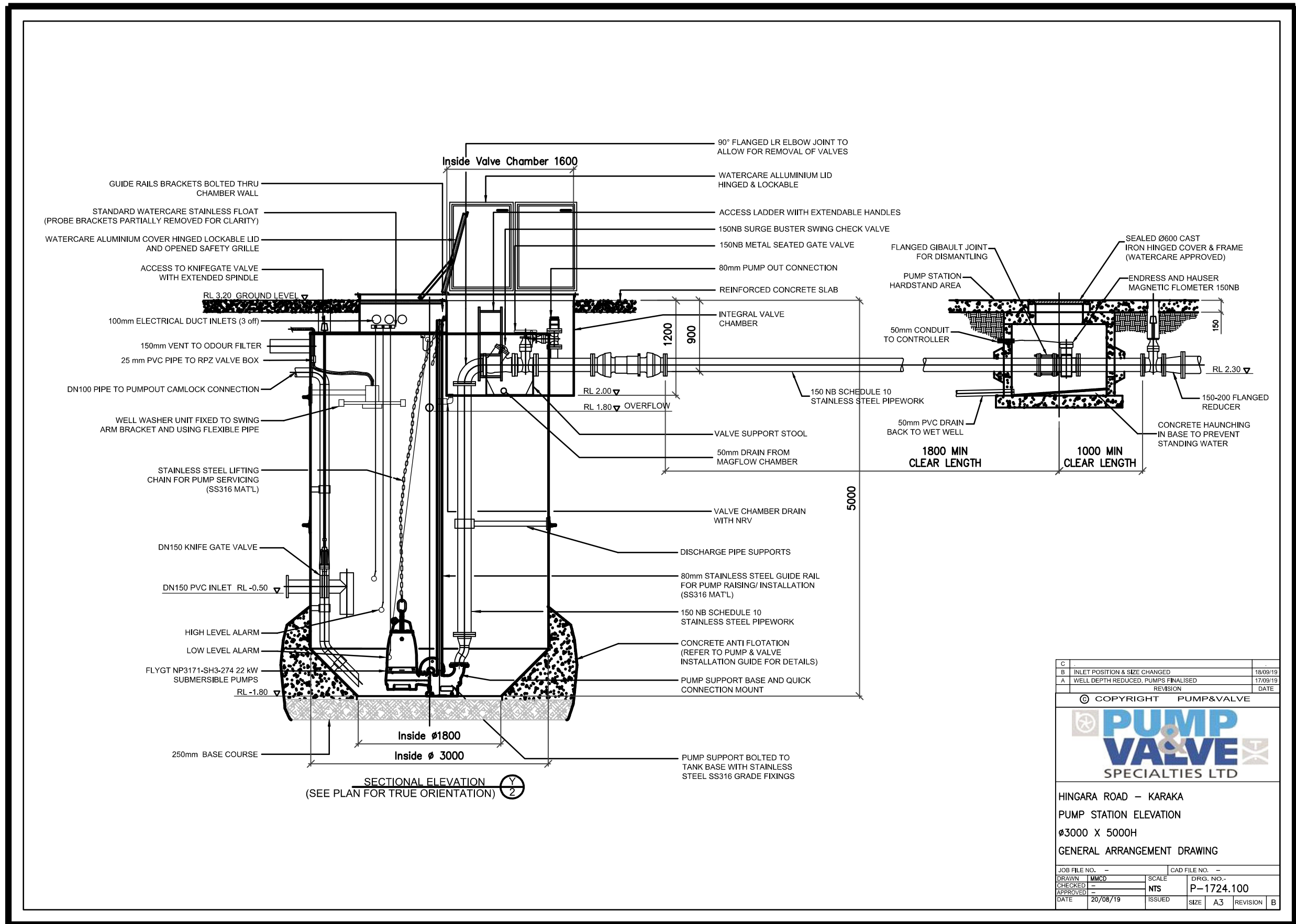


A FIRST ISSUE	MO SM JSD	DRN BY CHK BY APP BY DATE	
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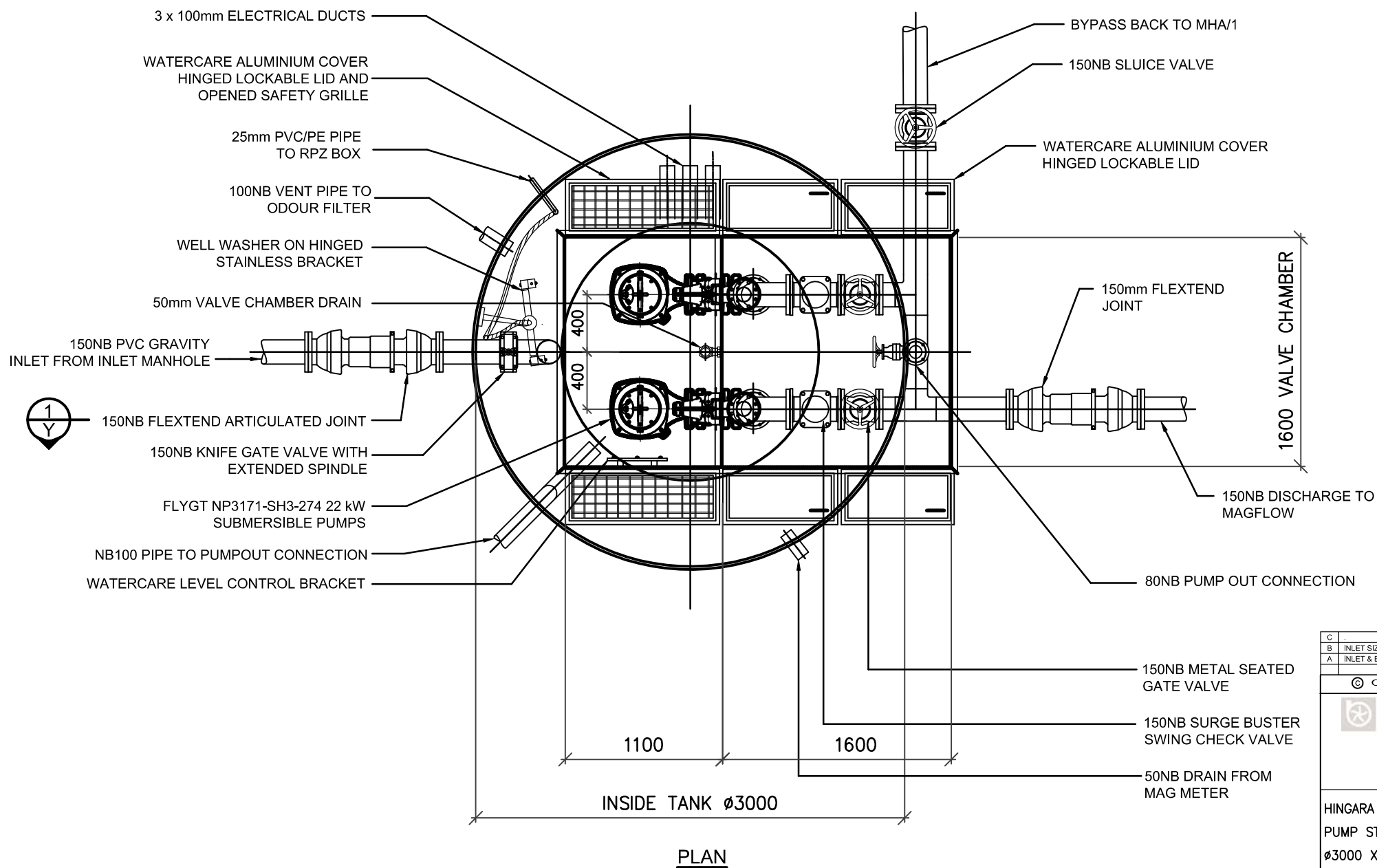








C			
B	INLET POSITION & SIZE CHANGED		18/09/19
A	WELL DEPTH REDUCED, PUMPS FINALISED		17/09/19
	REVISION		DATE
© COPYRIGHT PUMP&VALVE			
HINGARA ROAD - KARAKA			
PUMP STATION ELEVATION			
Ø3000 X 5000H			
GENERAL ARRANGEMENT DRAWING			
JOB FILE NO.	-	CAD FILE NO.	-
DRAWN	MMCD	SCALE	DRG. NO. -
CHECKED	-	NTS	P-1724.100
APPROVED	-		
DATE	20/08/19	ISSUED	SIZE A3 REVISION B

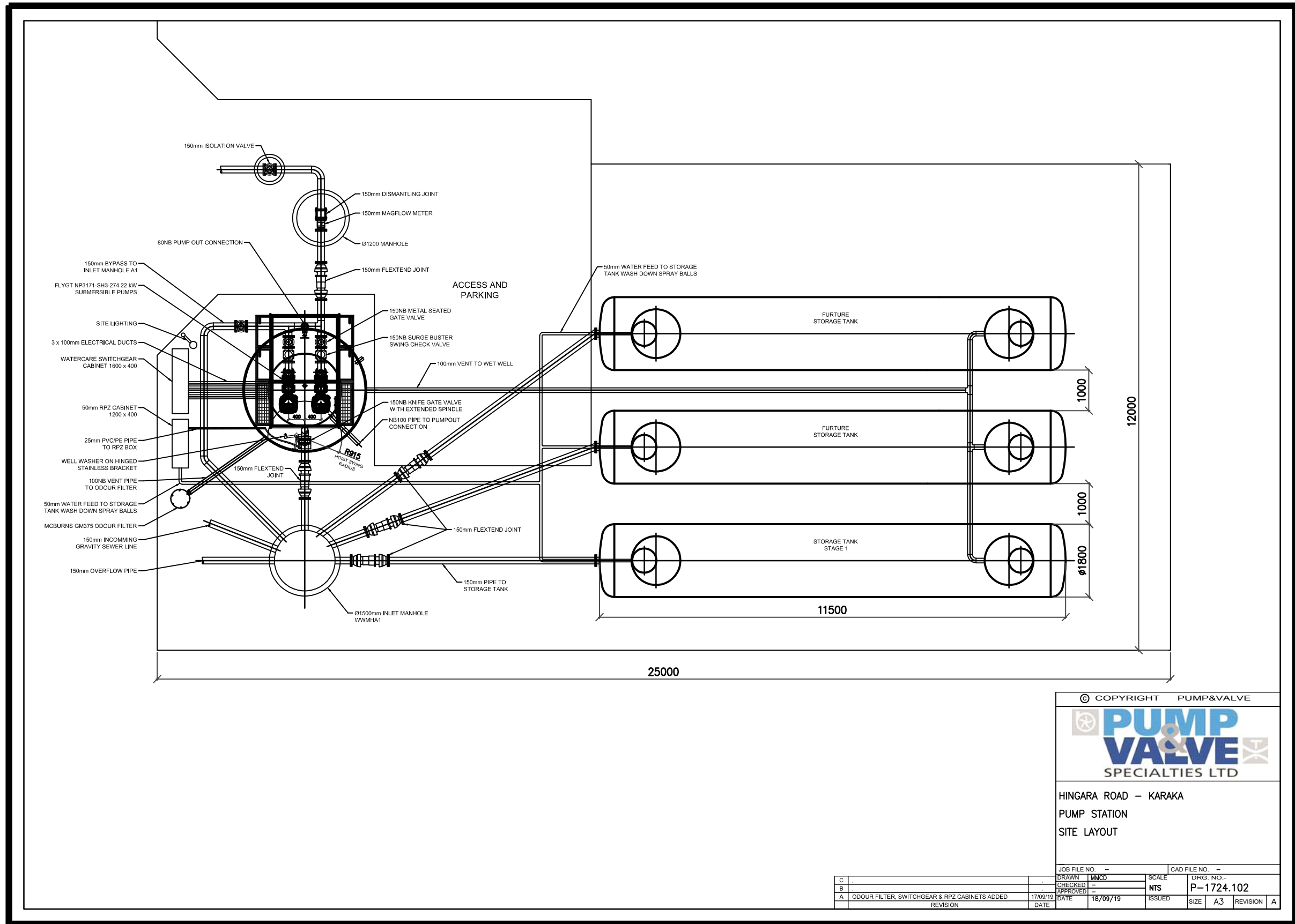


C			
B	INLET SIZE CORRECTED		18/09/19
A	INLET & ELECTRICAL DUCTS MOVED, PUMPS FINALISED		17/09/19
	REVISION		DATE
© COPYRIGHT PUMP&VALVE			
HINGARA ROAD - KARAKA			
PUMP STATION			
Ø3000 X 5000H			
GENERAL ARRANGEMENT DRAWING			
JOB FILE NO.	-	CAD FILE NO.	-
DRAWN	MMCD	SCALE	DRG. NO. -
CHECKED	-	NTS	P-1724.101
APPROVED	-		
DATE	20/08/19	ISSUED	SIZE A3 REVISION B

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 DRAINAGE WASTEWATER STANDARD DETAILS SHEET 4 PURPOSE OF ISSUE: FOR CONSENT SCALE: N.T.S DO NOT SCALE DRAWING NO: 1976-1-593 REV: C



HINGARA ROAD - KARAKA  
PUMP STATION  
SITE LAYOUT

JOB FILE NO. -	CAD FILE NO. -
DRAWN MMCD	SCALE NTS
CHECKED -	DRG. NO. P-1724.102
APPROVED -	
DATE 17/09/19	ISSUED DATE 18/09/19
REVISION	SIZE A3
	REVISION A

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

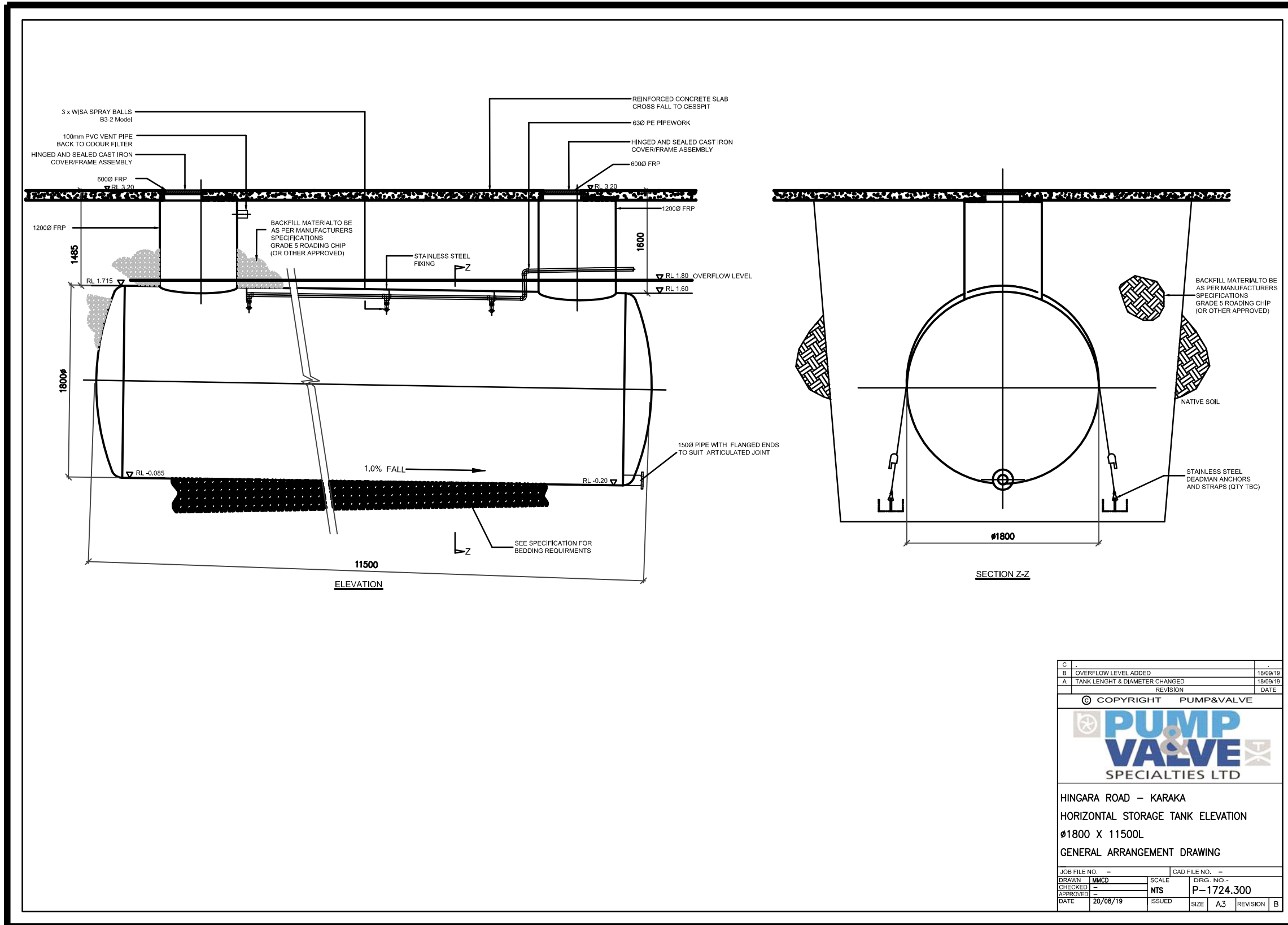


CLIENT: THE BEARS HOME PROJECT MANAGEMENT LTD

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

TITLE: PROPOSED DRAINAGE WASTEWATER STANDARD DETAILS  
SHEET 5

PURPOSE OF ISSUE: FOR CONSENT  
SCALE: N.T.S  
DO NOT SCALE  
DRAWING NO: 1976-1-594  
REV: C



C			
B	OVERFLOW LEVEL ADDED		18/09/19
A	TANK LENGTH & DIAMETER CHANGED		18/09/19
	REVISION		DATE
© COPYRIGHT PUMP&VALVE			
<b>PUMP &amp; VALVE</b> SPECIALTIES LTD			
HINGARA ROAD - KARAKA			
HORIZONTAL STORAGE TANK ELEVATION			
#1800 X 11500L			
GENERAL ARRANGEMENT DRAWING			
JOB FILE NO.	-	CAD FILE NO.	-
DRAWN	MMC	SCALE	DRG. NO. -
CHECKED	-	NTS	P-1724.300
APPROVED	-		
DATE	20/08/19	ISSUED	SIZE A3 REVISION B

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

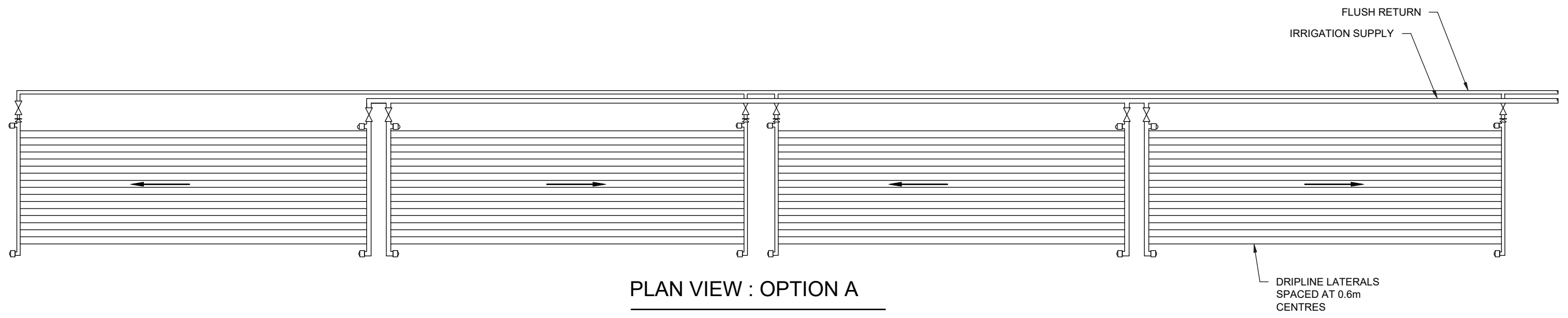


CLIENT: THE BEARS HOME PROJECT MANAGEMENT LTD

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

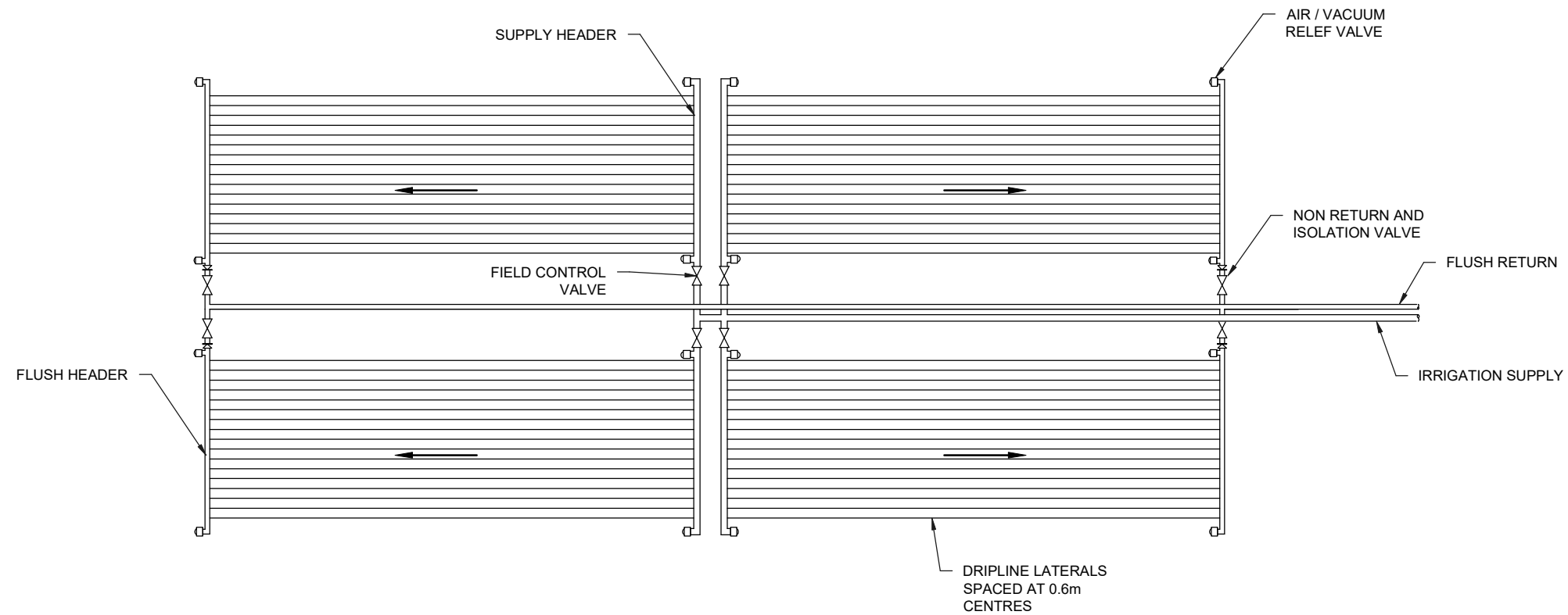
TITLE: PROPOSED DRAINAGE  
WASTEWATER STANDARD DETAILS  
SHEET 6

PURPOSE OF ISSUE: FOR CONSENT  
SCALE: N.T.S  
DO NOT SCALE  
DRAWING NO: 1976-1-595  
REV: C



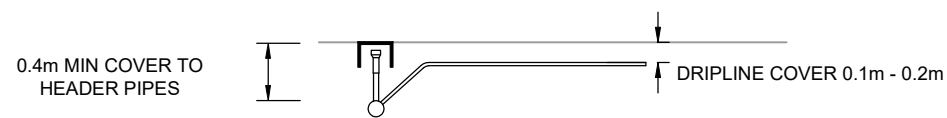
**PLAN VIEW : OPTION A**

SCALE : N.T.S



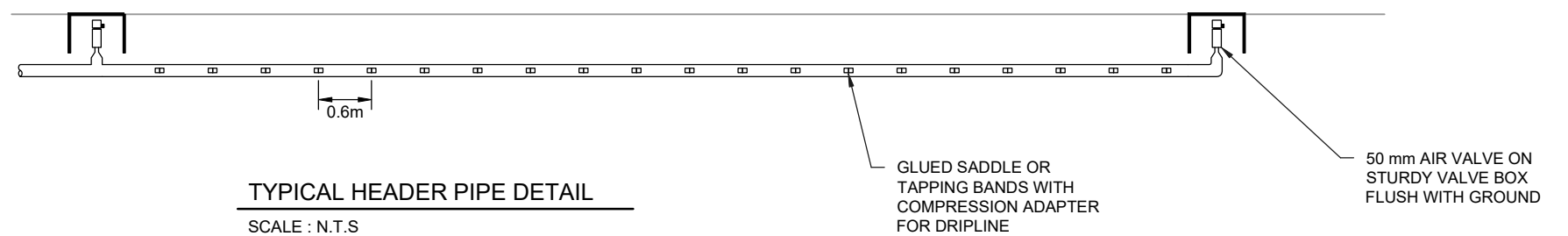
**PLAN VIEW : OPTION B**

SCALE : N.T.S



**TYPICAL HEADER PIPE SECTION**

SCALE : N.T.S



**TYPICAL HEADER PIPE DETAIL**

SCALE : N.T.S



CLIENT:  
**THE BEARS HOME  
PROJECT MANAGEMENT LTD**

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

TITLE:  
**PROPOSED DRAINAGE  
IRRIGATION DETAILS  
AND SCHEMATIC LAYOUT  
SHEET 7**

PURPOSE OF ISSUE:  
**FOR CONSENT**

SCALE:  
**N.T.S**  
DO NOT SCALE

DRAWING NO:  
**1976-1-597**

REV:  
**A**

REV	DESCRIPTION	DRN BY	CHK BY	APP BY	DATE
A	FIRST ISSUE	MO	SM	JSD	