

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 2. CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
 3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 4. PIPE BEDDING: 0 - 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (MPA PLUS SPLIT SCOUR RISERS).
 5. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF PRELAYING AND EXTENDING FROM THE OTHER END OF THE PIPE. ALL ABOVE GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 6. APPROVED HADDFILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 7. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
 8. ALL LINES ARE TO BE 150MMID PVC CLASS S185 UNLESS SHOWN OTHERWISE.
 9. ALL MANHOLES TO BE 1500MM DIA. TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MMID x 150MMID UNDER LUNION AND BLANK CAP.
 10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 - - - - - PR GROUND LEVEL
 - - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

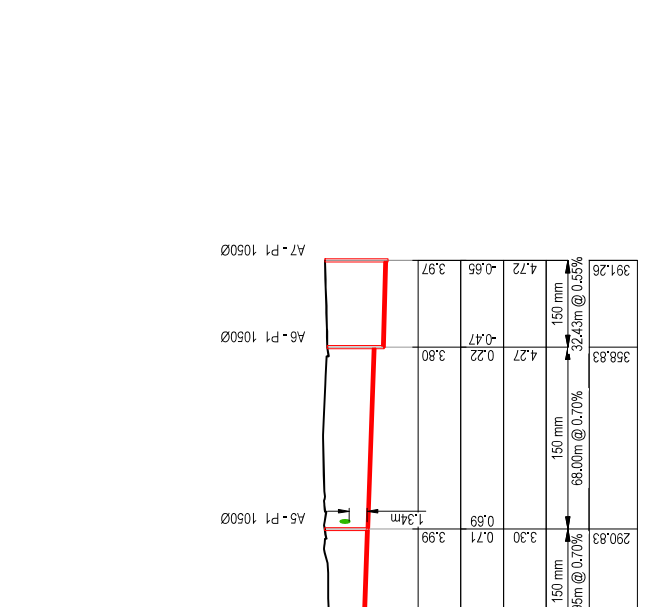
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

Maven Bay of Plenty
 118 Cameron Street, Tauranga
 www.maven.co.nz
 07 778 9200

Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

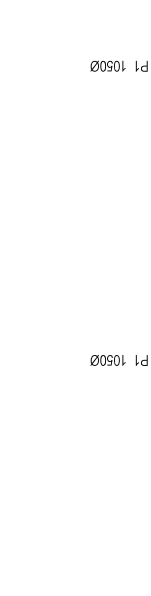
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP09052020/DWG
Drawing no.	CS20-1
Rev	B



Station	Design Invert (m)	Structure Depth (m)	Chainage
A1 - P1 105000	2.83	1.13	0.00
A2 - P1 105000	4.46	2.33	97.84
A3 - P1 105000	4.18	2.51	160.66
A4 - P1 105000	3.61	1.04	251.88
A5 - P1 105000	3.99	0.71	290.83
A6 - P1 105000	3.80	0.22	358.83
A7 - P1 105000	3.97	0.66	391.26

150 mm @ 0.70%
 97.84m @ 0.70%
 62.82m @ 0.70%
 91.22m @ 0.70%
 38.95m @ 0.70%
 68.00m @ 0.70%
 32.43m @ 0.58%
 150 mm
 1.34m
 150 mm
 150 mm

WW LINE A- PUMP 1
 SCALE: HORI 1:2000 VERT 1:400



Station	Design Invert (m)	Structure Depth (m)	Chainage
B1 - P1 105000	3.06	1.08	0.00
B2 - P1 105000	4.71	2.29	110.00
B3 - P1 105000	4.52	1.92	159.13
B4 - P1 105000	1.20	3.30	259.01

150 mm @ 0.70%
 110.00m @ 0.70%
 46.13m @ 0.70%
 99.88m @ 0.70%
 150 mm
 150 mm

WW LINE B -PUMP 1
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING TO 10% GRAVEL AS BEDDING 10-20% GRAVEL TO BE USED TO COVER ALL JOINTS. ALL WEAK CONCRETE BEDDING (MPA PLUS ANTISCOUR BLOCKS AT 8M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED 100MM FROM THE END OF THE PIPE AND THE TIME OF READING AND SETTING OUT TO BE INDICATED ON 1:50MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARPILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø P/C CLASS S118 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

PR GROUND LEVEL
 EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

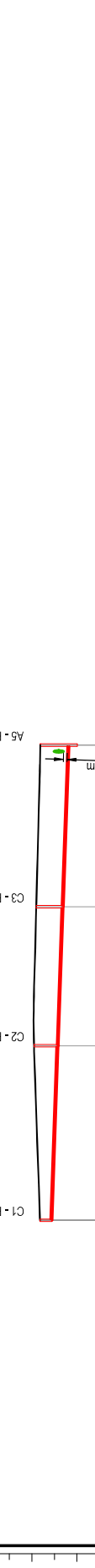
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

Maven Bay of Plenty
 118 Cameron Street, Tauranga
 www.maven.co.nz
 07 778 2222

Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

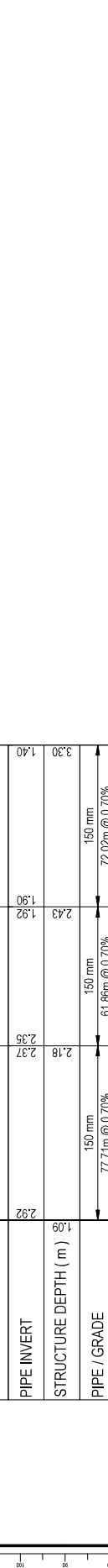
Title		PROPOSED WASTEWATER LONG SECTION
Project no.	BOP0749	
Scale	AS SHOWN	
Client	BPP0749/2025/DWG	
Drawing no.	CS20-2	Rev B

Design Levels	Design Invert	Structure Depth (m)	Pipe / Grade	Chainage
4.00	2.92	1.09	150 mm @ 0.70%	0.00
4.53	2.37	2.18	150 mm @ 0.70%	77.71
4.33	1.92	2.43	150 mm @ 0.70%	61.89m @ 0.70%
4.33	1.90	2.43	150 mm @ 0.70%	72.02m @ 0.70%
3.99	1.40	3.30	150 mm @ 0.70%	211.80



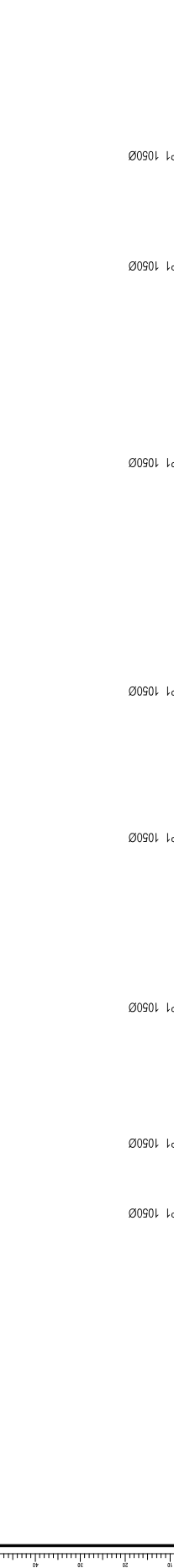
WW LINE C-PUMP 1
 SCALE: HORI 1:2000 VERT 1:400

Design Levels	Design Invert	Structure Depth (m)	Pipe / Grade	Chainage
3.80	2.92	0.88	150 mm @ 0.55%	0.00
4.02	2.07	1.95	150 mm @ 0.56%	87.57m @ 0.56%
4.41	0.43	3.98	150 mm @ 0.70%	101.75m @ 0.70%
4.12	0.07	4.05	150 mm @ 0.55%	49.08m @ 0.55%
3.80	-0.36	4.16	150 mm @ 0.55%	489.80



WW LINE D-PUMP 1
 SCALE: HORI 1:2000 VERT 1:400

Design Levels	Design Invert	Structure Depth (m)	Pipe / Grade	Chainage
3.99	2.92	1.07	150 mm @ 0.70%	0.00
4.24	2.70	1.57	150 mm @ 0.70%	50.19
4.25	2.25	2.02	150 mm @ 0.70%	60.37m @ 0.70%
4.25	2.23	2.02	150 mm @ 0.70%	75.68m @ 0.70%
3.85	1.70	2.21	150 mm @ 0.70%	189.24
3.85	1.19	2.71	150 mm @ 0.70%	251.40
4.03	0.43	3.60	150 mm @ 0.70%	353.15
4.07	0.07	3.99	150 mm @ 0.56%	87.57m @ 0.56%
4.27	0.07	4.20	150 mm @ 0.55%	49.08m @ 0.55%
3.80	-0.36	4.16	150 mm @ 0.55%	489.80



WW LINE D-PUMP 1
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
- COORDINATES IN TERMS OF BAY OF PLENTY 2000.
- REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- PIPE BEDDING: 0-10% GRANULAR BEDDING, 10-20% BEDDING OF 10% GRANULAR BEDDING AND 10% BEDDING OF 10% GRANULAR BEDDING WITH 10% WEAR CONCRETE BEDDING (IMPACT PLUS ANTI SCOUR BLOCKS AT 6M CRS).
- EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE POINT OF CONNECTION TO 15MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
- APPROVED HARDROLL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL HAVE 150mm GRS OR EQUIVALENT INSULATED. ALL MANHOLES TO BE 1500mm DIA. UNLESS SHOWN OTHERWISE.
- 150MM DIA FRAMES THAT DO NOT TERMINATE IN A 150MM DIA LINDEN JUNCTION AND BLANK CAP. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

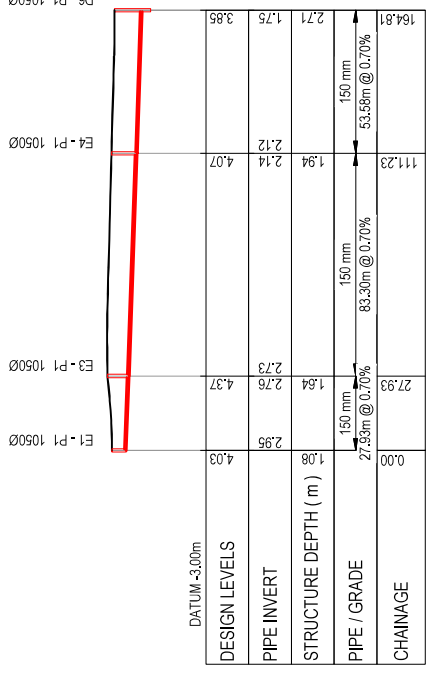
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



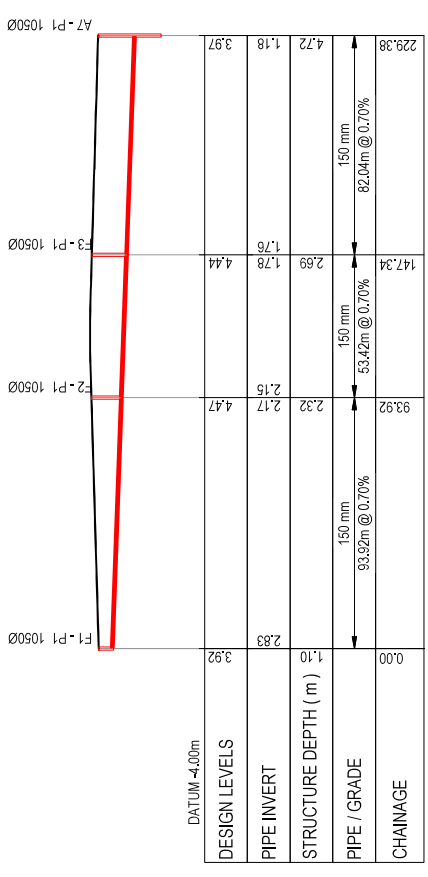
Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01952020.DWG
Drawing no.	CS20-3
Rev	B



WW LINE E-PUMP 1
SCALE: HORI 1:2000 VERT 1:400



WW LINE F-PUMP 1
SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDINGS OF 15% GRANULAR BEDDING 10-20% WEAK CONCRETE BEDDING CEMENTER 50% WEAK WEAK CONCRETE BEDDINGS (MPA PLUS ANTI SCOUR BLOCKS AT 9M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED 100MM FROM THE END OF THE PIPE AND AT THE TIME OF LAYING AND EXTENDING FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDPISLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE RINGS AND FRAMES TO BE USED IN ALL MANHOLES. ALL MANHOLES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS S118 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LINDEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

—— PR GROUND LEVEL
 - - - - EX GROUND LEVEL

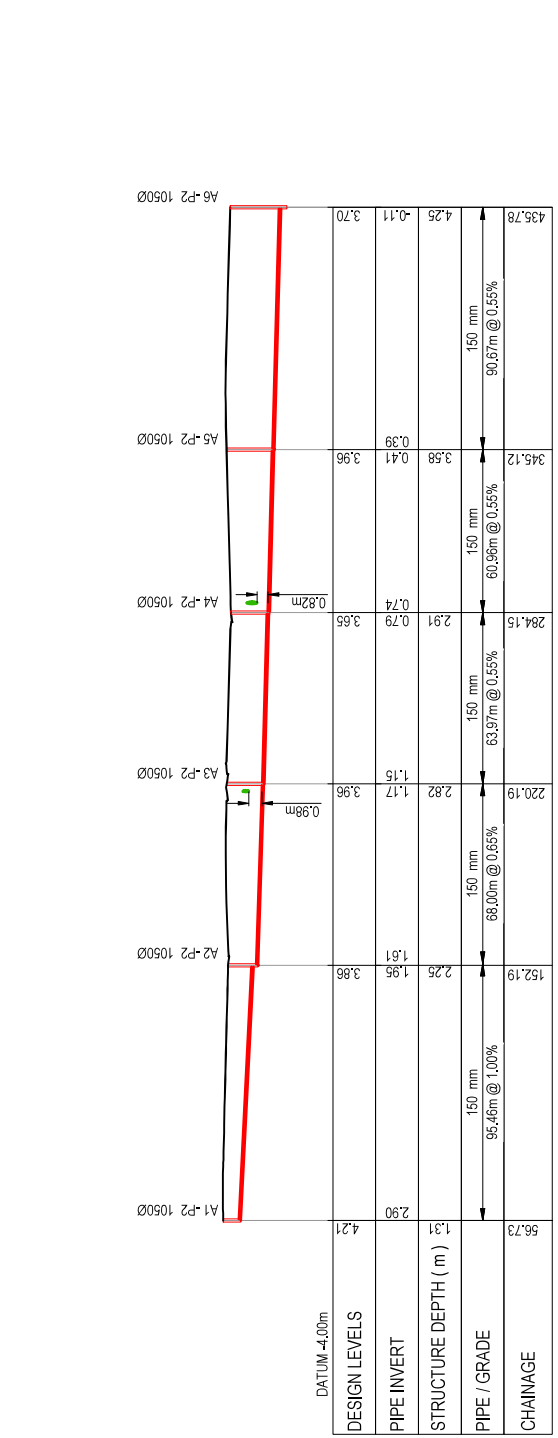
Survey	MAVEN	Date	05/02/25
Design	DP	11/25	
Drawn	DP	11/25	
Checked	CS	11/25	

Maven Bay of Plenty
 118 Cameron Street, Tauranga
 www.maven.co.nz
 07 778 9200

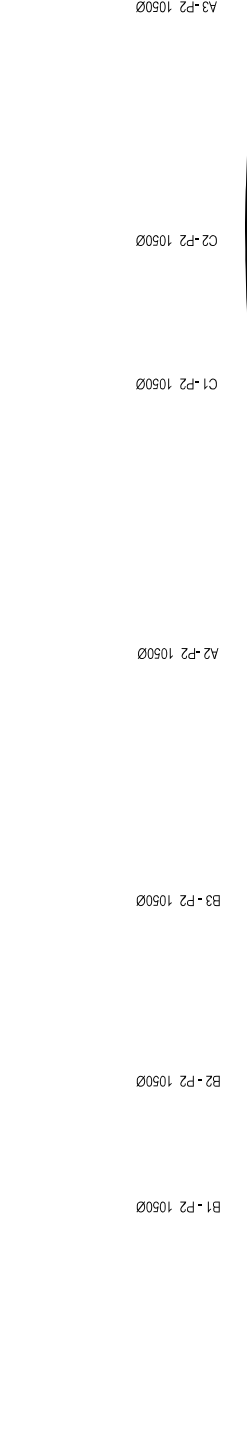
Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Project no.	BOP0749
Scale	AS SHOWN
Certifile	BPOPPCS2016WG
Drawing no.	CS20-4
Rev	B

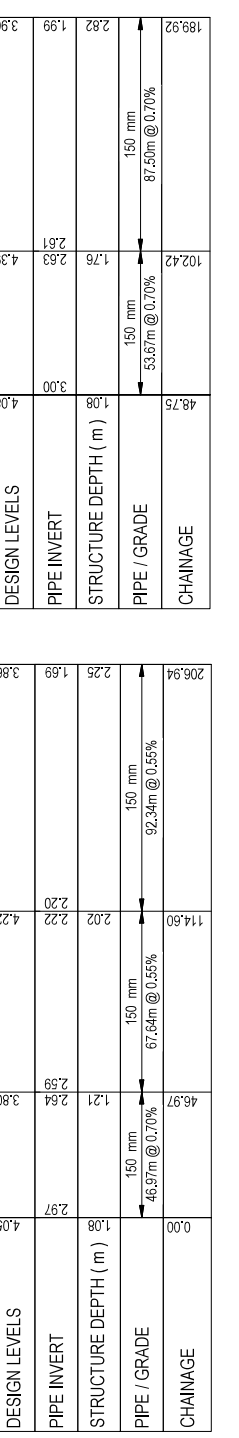
Title
PROPOSED WASTEWATER LONG SECTION



WW LINE A-PUMP 2
 SCALE: HORI 1:2000 VERT 1:400



WW LINE B-PUMP 2
 SCALE: HORI 1:2000 VERT 1:400



WW LINE C-PUMP 2
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

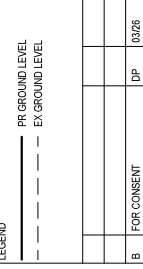
- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE OPERATIONS THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - THE DESIGN OF 150mm GRANULAR BEDDING IS 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (MPA PLUS ANTI SCOUR BLOCKS AT 9M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THE MARKER POST SHALL BE PLACED 150MM FROM THE END OF THE STAKE. THE TIME OF REPLACING AND EXTENDING FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDFILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE RISERS AND FRAMES TO BE USED. ALL MANHOLE RISERS AND FRAMES SHALL HAVE STAINLESS GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS SNI8 UNLESS SHOWN OTHERWISE.
 - 150MM Ø RPPS THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LINDEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

— PR GROUND LEVEL
 - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



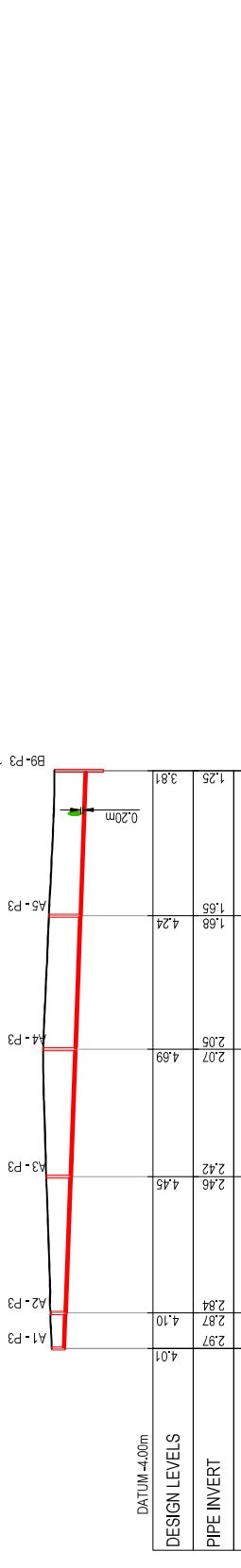
Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

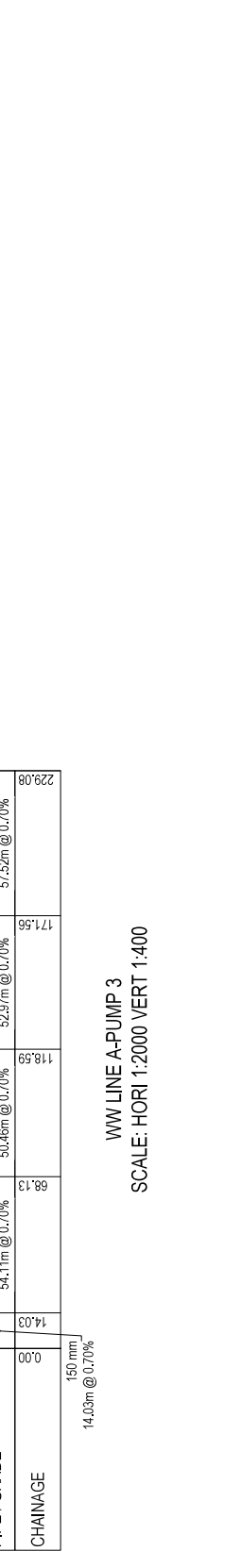
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP019CS2010.DWG
Drawing no.	CS20-7
Rev	B



WW LINE A-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



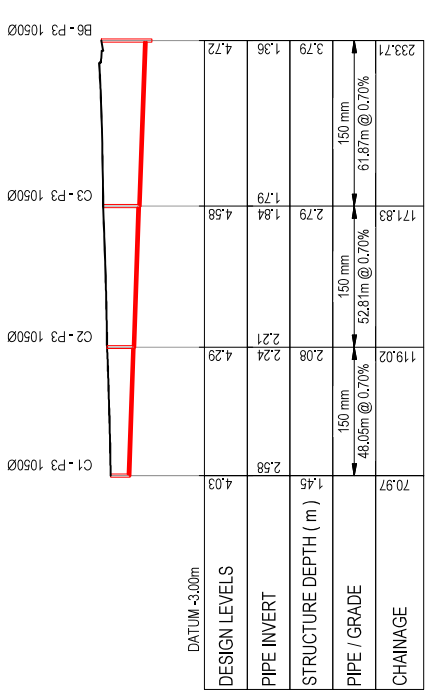
WW LINE B-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



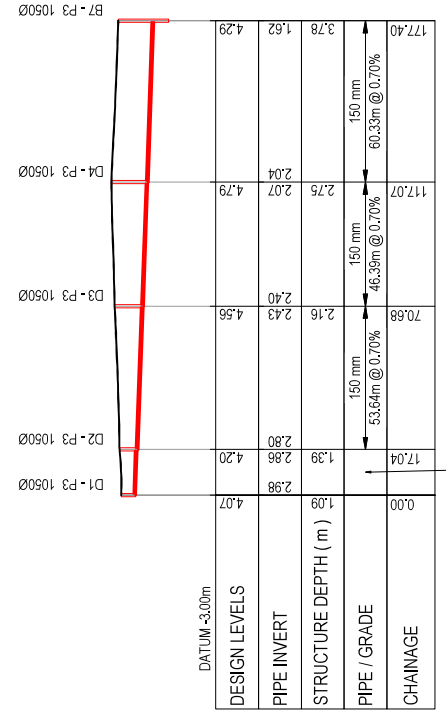
FOR CONSENT

SCALE: HORI 1:2000 VERT 1:400

ORIGINAL SIZE: A3



WW LINE C-PUMP 3
SCALE: HORI 1:2000 VERT 1:400



WW LINE D-PUMP 3
SCALE: HORI 1:2000 VERT 1:400

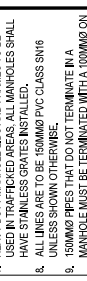
- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING 0 - 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING (MFA PLUS ANTI SCOUR BLOCKS AT 1M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE POINT OF CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARPILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL BE 1500MM DIA. UNLESS OTHERWISE SPECIFIED.
 - ALL LINES ARE TO BE 150MM PVC CLASS S118 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNDSIN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TYPING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

—— PR GROUND LEVEL
 - - - - EX GROUND LEVEL

B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Rev	Description	By	Date
	Survey	MAVEN	05/2025
	Design	DP	11/25
	Drawn	DP	11/25
	Checked	CS	11/25



Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

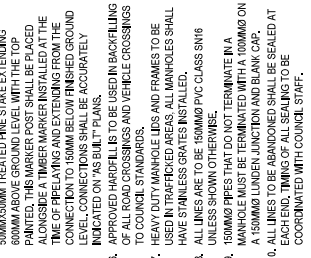
Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP0749-020.DWG
Drawing no.	C520-8

Rev	B
-----	---

FOR CONSENT

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 2. COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 4. PIPE BEDDING IS 10% GRANULAR BEDDING 10-20% WEAK CONCRETE BEDDING (M/PA PLUS WITH SCOUR BLOCKS AT 8M CRS).
 5. EACH CONNECTION SHALL BE MARKED BY A 60MMx60MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED AT THE CENTER OF THE CONNECTION. THE THICKNESS OF THE PAINTING SHALL BE 10MM. THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
 6. APPROVED HARPILLIBS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 7. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLES SHALL BE 1500MM DIA. UNLESS OTHERWISE SPECIFIED. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
 8. ALL LINES ARE TO BE 150MM Ø P/C CLASS S118 UNLESS SHOWN OTHERWISE.
 9. 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNDEEN JUNCTION AND BLANK CAP.
 10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TYPING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	Date	05/2025
Design	DP	11/25	
Drawn	DP	11/25	
Checked	CS	11/25	

M A V E N
 M A V E N Bay of Plenty
 118 Cameron Street, Tauranga
 www.mavenco.nz
 07 7700 2222

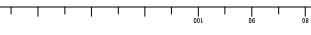
Project
WAIRAKEI SOUTH FTA090
DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD
LIMITED PARTNERSHIP

Title
PROPOSED
WASTEWATER
LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01962020/DWG
Drawing no.	C520-9

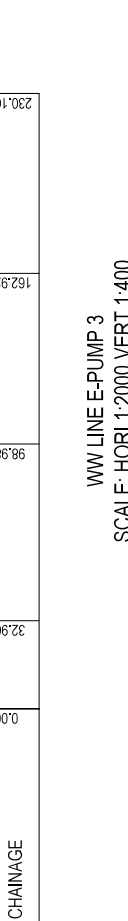
Rev	B
-----	---

ORIGINAL SIZE: A3

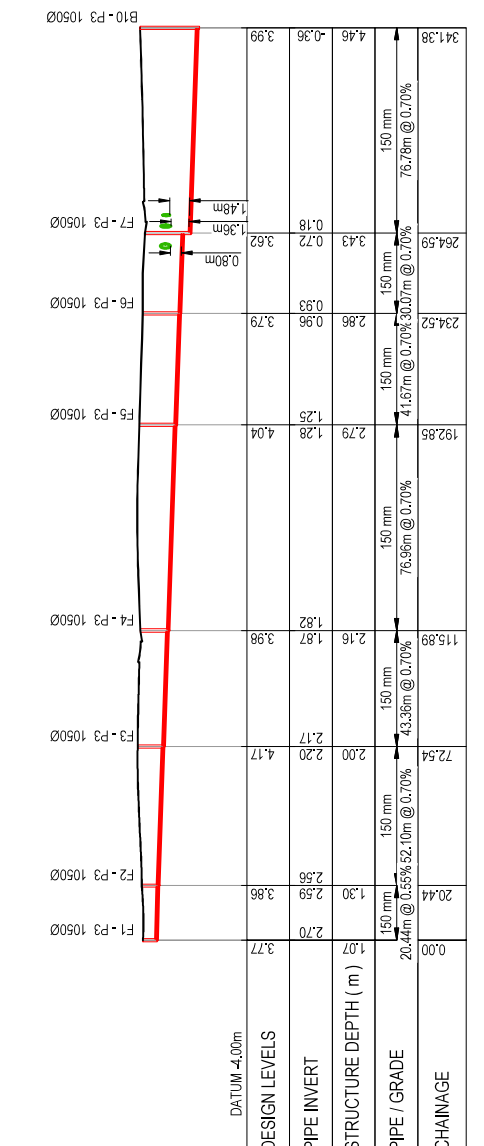


DATE: 03/26 11:25 AM (GMT+12:00) FILE PATH: \\MVEN\WORKS\BAY OF PLENTY\PROJECTS\090749\BELL ROAD\DRAWING\090749\090749_C520-9.dwg

FOR CONSENT



WW LINE E-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



WW LINE F-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400

- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING 0 - 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING (M/PA PLUS RATTI SCOUR BLOCKS AT 8M CS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 50MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THE MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER WARENE INSTALLED AT THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARPILLERS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL BE 1000MM DIA. TO BE CONCRETE AND 1000MM DIA. ALL LINES ARE TO BE 1000MM PVC CLASS S118 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNGER JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

— PR GROUND LEVEL
 - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

Maven Bay of Plenty
 118 Cameron Street, Tauranga
 www.maven.co.nz
 07 778 2222

Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP095C2020DWG
Drawing no.	C520-10

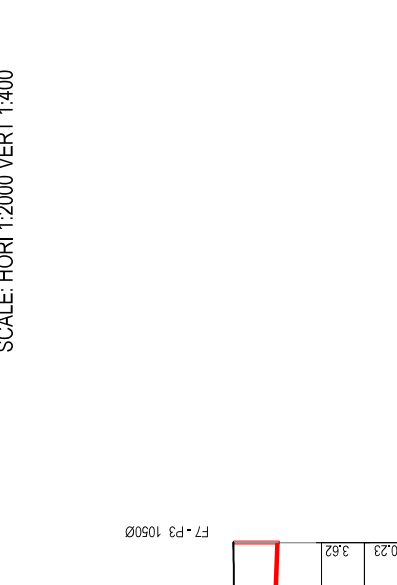
Rev	B
-----	---



WW LINE H-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400

Station	F1 - P3 10500	F2 - P3 10500	F3 - P3 10500	F4 - P3 10500	F5 - P3 10500	F6 - P3 10500	F7 - P3 10500
Design Levels	3.75	4.04	4.11	4.38	4.21	4.21	3.82
Pipe Invert	2.65	2.40	2.18	1.78	1.41	0.68	0.23
Structure Depth (m)	1.10	1.64	1.93	2.60	2.80	3.53	3.43
Chainage	0.00	31.29	58.92	84.82	112.86	161.53	296.06

WW LINE I-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



WW LINE G-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400

Station	G1 - P3 10500	G2 - P3 10500	G3 - P3 10500	G4 - P3 10500	G6 - P3 10500
Design Levels	4.06	4.29	4.32	4.32	4.23
Pipe Invert	1.08	1.70	1.85	1.82	1.64
Structure Depth (m)	2.98	2.59	2.47	2.50	2.59
Chainage	66.44	115.90	186.74	217.80	239.03

FOR CONSENT

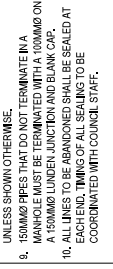
- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING 0 - 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING (MIPALUS ANTI SCOUR BLOCKS AT 8M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE POINT OF CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDPILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL BE REINFORCED WITH 100MMx100MM RIBBED GLASS FIBRE REINFORCED PLASTIC CLASS S116 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø UNION JOINT AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 ——— PR GROUND LEVEL
 - - - - - EX GROUND LEVEL

B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Rev	Description	By	Date

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

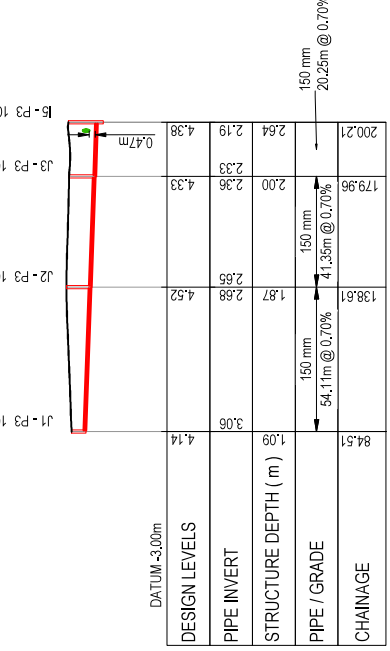


Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

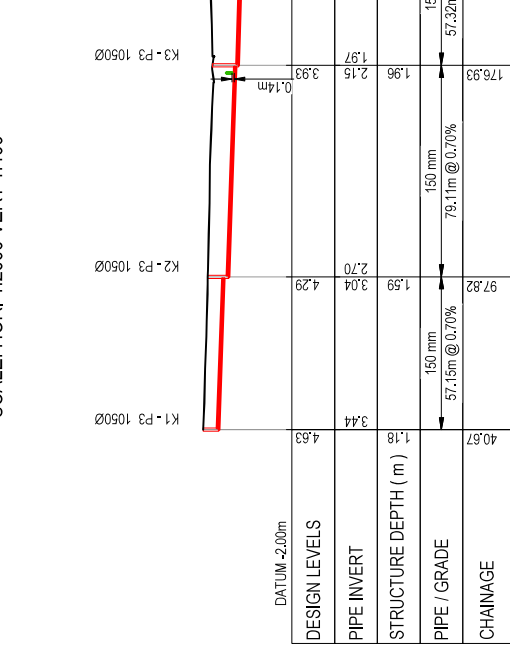
Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP019452010DWG
Drawing no.	C520-11
Rev	B

ORIGINAL SIZE: A3



WW LINE J-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



WW LINE K-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 2. CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
 3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 4. PIPE BEDDING IS 10% GRANULAR BEDDING TO ±20% BEDDING TO 10% GRANULAR BEDDING (MPA PLUS ANT SCOUR BLOCKS AT 9M CRS).
 5. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE POINT OF CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 6. APPROVED HARDPILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 7. HEAVY DUTY MANHOLE IDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL BE 1500MM DIA. UNLESS OTHERWISE SHOWN.
 8. ALL LINES ARE TO BE 150MM Ø PVC CLASS S16 UNLESS SHOWN OTHERWISE.
 9. 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
 10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 --- PR GROUND LEVEL
 - - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

Maven Bay of Plenty
 118 Cameron Street, Tauranga
 www.maven.co.nz
 07 378 0000

Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client file	BPOPPWSC020.DWG
Drawing no.	CS20-12
Rev	B



DATUM -3.00m

DESIGN LEVELS	4.20
PIPE INVERT	2.97
STRUCTURE DEPTH (m)	1.22
PIPE / GRADE	58.99m @ 0.70%
CHAINAGE	58.99

DESIGN LEVELS	3.78
PIPE INVERT	2.56
STRUCTURE DEPTH (m)	3.17
PIPE / GRADE	150 mm
CHAINAGE	58.99m @ 0.70%

WW LINE L-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



DATUM -2.00m

DESIGN LEVELS	4.20
PIPE INVERT	2.97
STRUCTURE DEPTH (m)	1.22
PIPE / GRADE	58.99m @ 0.70%
CHAINAGE	58.99

DESIGN LEVELS	3.78
PIPE INVERT	2.56
STRUCTURE DEPTH (m)	3.17
PIPE / GRADE	150 mm
CHAINAGE	58.99m @ 0.70%

WW LINE M-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



DATUM -3.00m

DESIGN LEVELS	4.23
PIPE INVERT	3.13
STRUCTURE DEPTH (m)	1.10
PIPE / GRADE	55.35m @ 0.70%
CHAINAGE	124.62

DESIGN LEVELS	4.19
PIPE INVERT	2.22
STRUCTURE DEPTH (m)	4.96
PIPE / GRADE	68.26m @ 0.70%
CHAINAGE	124.62

WW LINE N-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400

NOTES

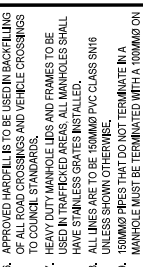
1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
2. CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR WORKING.
4. PIPE BEDDING 0 - 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (M/PA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
5. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED IN RED. MARKERS SHALL BE PLACED AT 10M INTERVALS. MARKERS SHALL BE PLACED AT THE TIME OF PIPE LAYING AND EXTENDING FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
6. APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
7. ALL JOINTS AND FRAMES TO BE USED IN TRENCHED AREAS. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
8. ALL LINES ARE TO BE 150MM Ø PVC CLASS SN16 UNLESS SHOWN OTHERWISE.
9. 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø x 150MM Ø LUNDEEN JUNCTION AND BLANK CAP.
10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

—— PR GROUND LEVEL
 - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

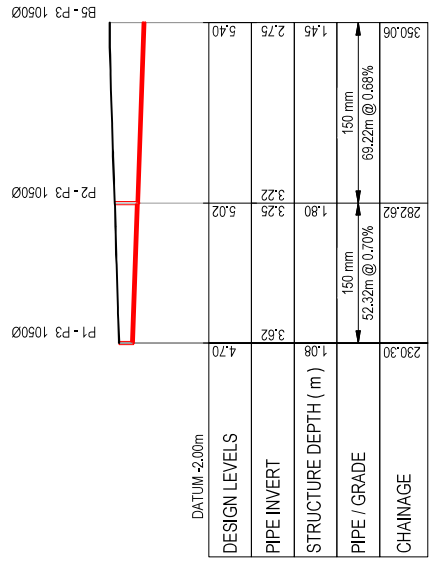
Survey	MAVEN	06/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



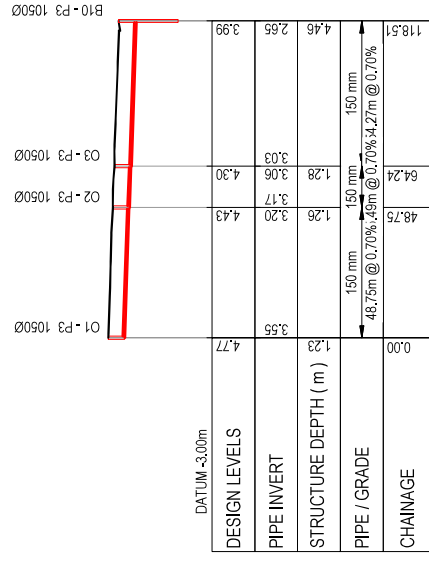
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title: **PROPOSED WASTEWATER LONG SECTION**

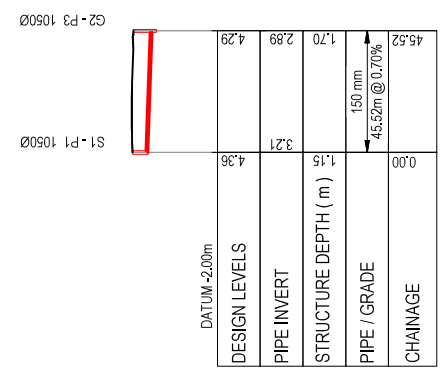
Project no.: BOP0749
 Scale: AS SHOWN
 Client: BPP019452010/DWG
 Drawing no.: CS20-13
 Rev: B



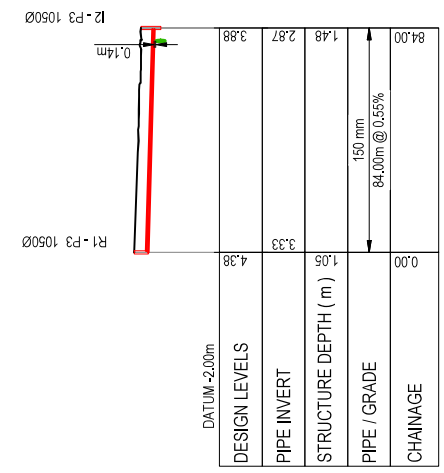
WW LINE P-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



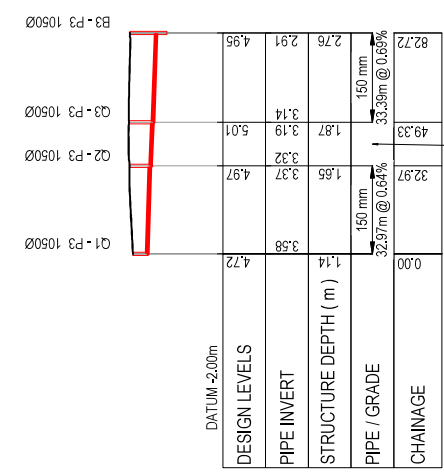
WW LINE O-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



WW LINE S-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



WW LINE R-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400



WW LINE Q-PUMP 3
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

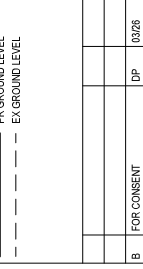
- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING - 10% GRANULAR BEDDING, 10-20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (MPP PLUS ANTI SCOUR BLOCKS AT 6M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE MANHOLE. THE MARKER SHALL BE PLACED IN CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
 - APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL HAVE 150MM GRATES INSTALLED.
 - ALL MANHOLES TO BE CLASS 5M18 UNLESS SHOWN OTHERWISE.
 - 150MMx90 PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MMx100 A 150MMx100 LINDEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

—— PR GROUND LEVEL
 - - - - - EX GROUND LEVEL

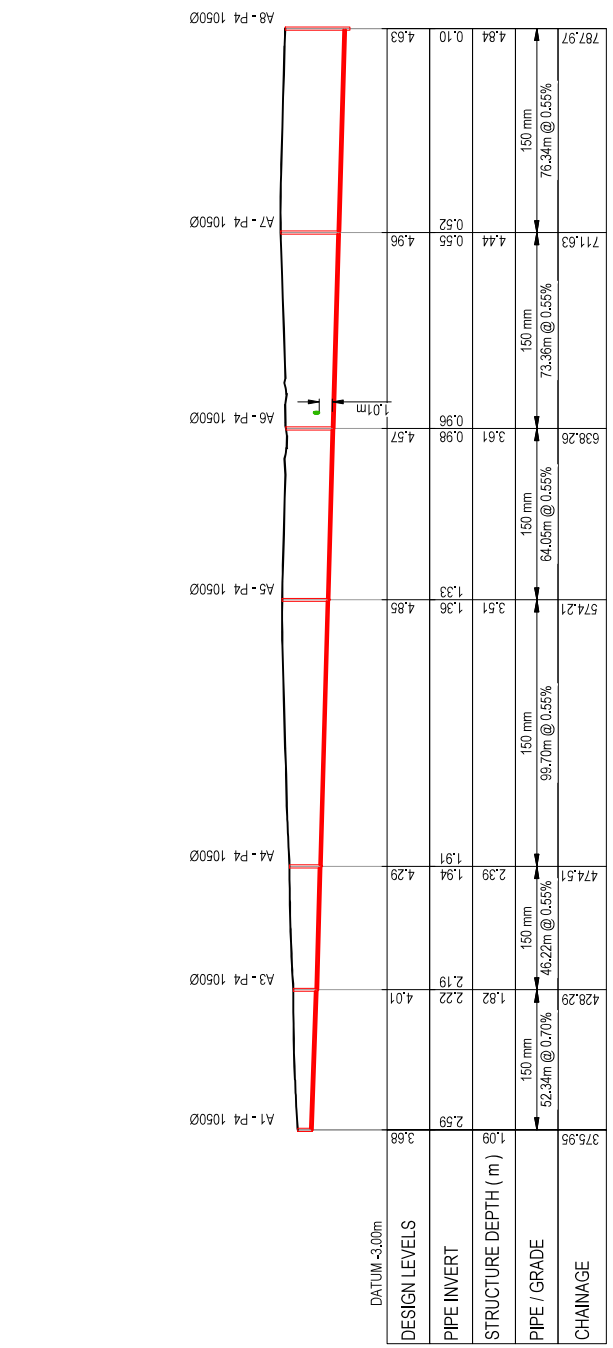
Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

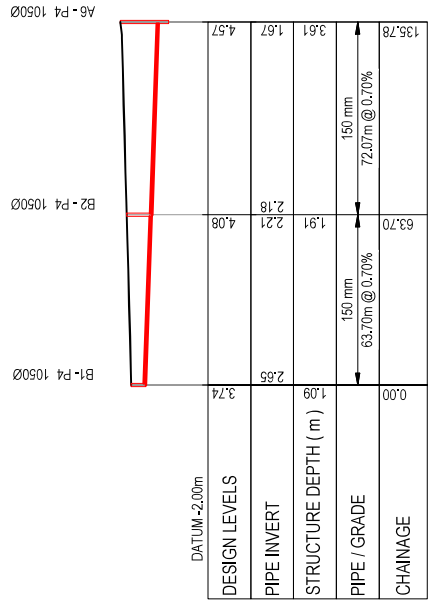


Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title	
PROPOSED WASTEWATER LONG SECTION	
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01452010.DWG
Drawing no.	CS20-14
Rev	B



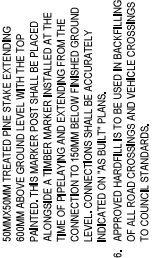
WW LINE A-PUMP 4
 SCALE: HORI 1:2000 VERT 1:400



WW LINE B-PUMP 4
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

- NOTES
1. WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 2. CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
 3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 4. PIPE BEDDING: 0 - 10% GRANULAR BEDDING 10 - 20% WEAR CONCRETE BEDDING GREATER THAN 20% GRANULAR BEDDING (MIPA PLUS ANTI SCOUR COATING).
 5. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF RELAYING AND EXTENDING FROM THE CONNECTION TO THE PREVIOUS FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 6. APPROVED HARDPILES TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 7. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
 8. ALL LINES ARE TO BE 150MM PVC CLASS SN18 UNLESS SHOWN OTHERWISE.
 9. 150MM PIPES TO BE 10% TOLERANCE IN A 150MM UNDER JUNCTION AND BLANK CAP.
 10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

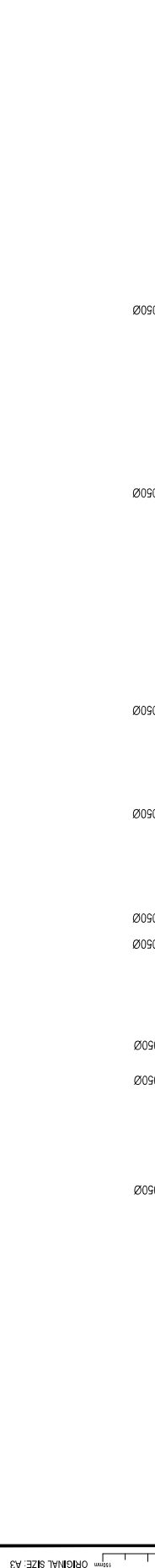
Survey	MAVEN	06/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

Maven Bay of Plenty
 118 Cameron Street, Tauranga
 www.maven.co.nz
 07 7700 2222

WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

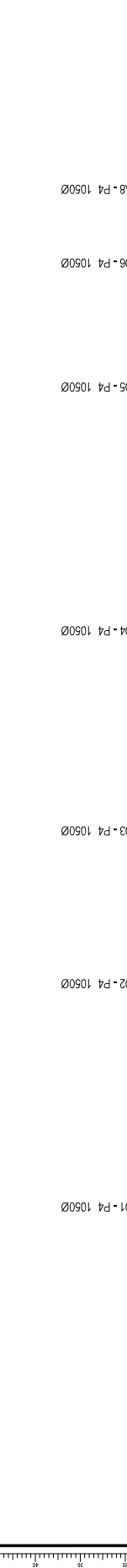
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP016452010.DWG
Drawing no.	CS20-15
Rev	B

PROPOSED WASTEWATER LONG SECTION



WW LINE C-PUMP 4
SCALE: HORI 1:2000 VERT 1:400

Manhole	Chainage	Invert (m)	Grade	Structure Depth (m)
C1-P4 10500	0.00	4.81	1.38	3.43
C2-P4 10500	64.46	2.94	1.63	2.94
C3-P4 10500	111.63	2.76	1.73	2.73
C4-P4 10500	158.80	2.22	1.99	2.24
C5-P4 10500	216.07	2.11	2.38	1.72
C6-P4 10500	274.34	1.46	2.47	1.41
C7-P4 10500	332.61	1.16	2.49	1.11
C8-P4 10500	390.88	0.58	3.61	0.56
D5-P4 10500	449.15	0.50	3.83	0.50
D6-P4 10500	507.42	0.06	4.33	0.11



WW LINE D-PUMP 4
SCALE: HORI 1:2000 VERT 1:400

Manhole	Chainage	Invert (m)	Grade	Structure Depth (m)
D1-P4 10500	0.00	3.17	1.09	4.25
D2-P4 10500	57.27	2.47	1.29	2.42
D3-P4 10500	114.54	1.71	2.51	1.94
D4-P4 10500	171.81	1.22	3.49	1.12
D5-P4 10500	229.08	0.53	3.83	0.50
D6-P4 10500	286.35	0.20	4.33	0.06
A8-P4 10500	343.62	-0.12	4.84	-0.12

FOR CONSENT

- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING IS 10% GRANULAR BEDDING 10-20% WEAK CONCRETE BEDDING (M/PA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED 100MM FROM THE PIPE. A TIMBER MARKER INSTALLED AT THE TOP OF THE PIPE SHALL BE USED TO VERIFY THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
 - APPROVED "HARDHATS" TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED FOR ALL MANHOLES. ALL MANHOLES SHALL BE CONCRETE. ALL MANHOLES SHALL HAVE EXTERNAL GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS S118 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø x 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

—— PR GROUND LEVEL
 - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

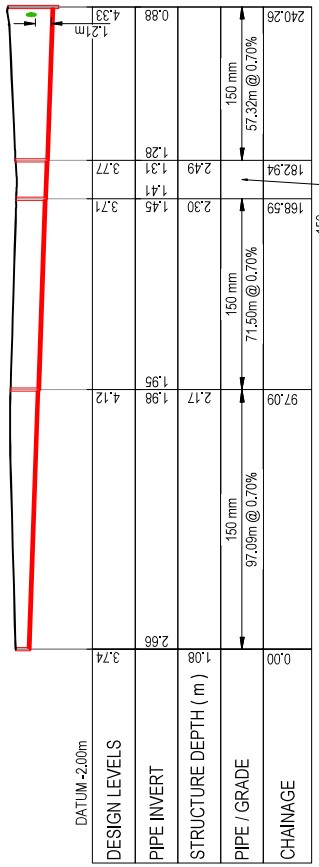
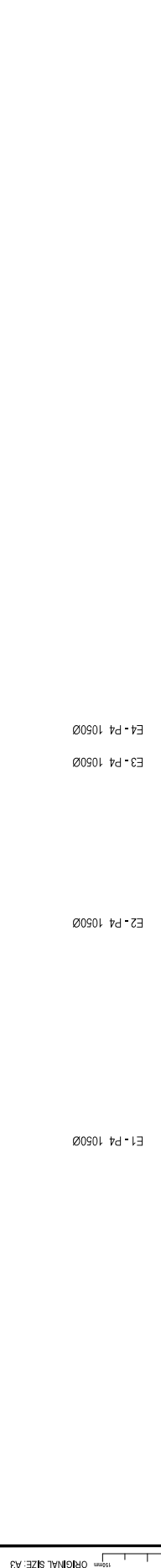
Survey	MAVEN	Date	05/2025
Design	DP	11/25	
Drawn	DP	11/25	
Checked	CS	11/25	

Maven Bay of Plenty
 118 Cameron Street, Tauranga
 www.maven.co.nz
 07 778 9200

Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA FOR BELL ROAD LIMITED PARTNERSHIP

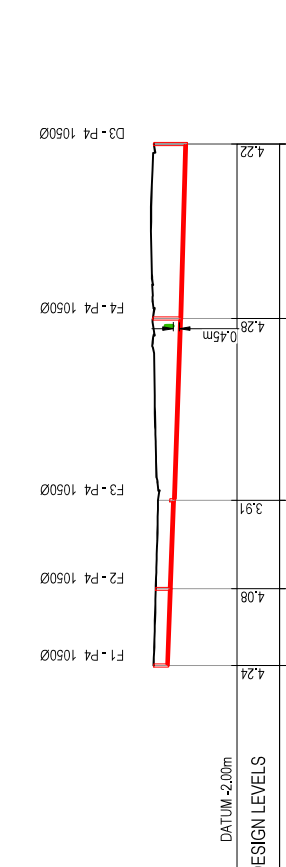
Title
PROPOSED WASTEWATER LONG SECTION

Project no. BOP0749
Scale AS SHOWN
Client BOP/PL/2025/01/MS
Drawing no. CS20-16
Rev B



14.34m @ 0.70%

WW LINE E-PUMP 4
SCALE: HORI 1:2000 VERT 1:400



0.45m

WW LINE F-PUMP 4
SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

NOTES

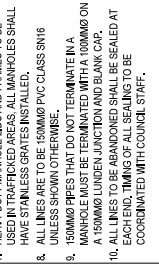
1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
2. CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
4. PIPE BEDDING 0 - 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (MIP PLUS ANTI SOUR BLOCKS AT 8M CRS)
5. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE SIDE OF THE PIPE. THE MARKER SHALL BE 100MM HIGH AND 100MM WIDE. THE MARKER SHALL BE 100MM FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
6. APPROVED HARDPILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
7. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
8. ALL MANHOLES TO BE CLASSIFIED AS CLASS SN16 UNLESS SHOWN OTHERWISE.
9. 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

—— PR GROUND LEVEL
 - - - - EX GROUND LEVEL

Survey	MAVEN	Date	05/2025
Design	DP	11/25	
Drawn	DP	11/25	
Checked	CS	11/25	

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25



Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

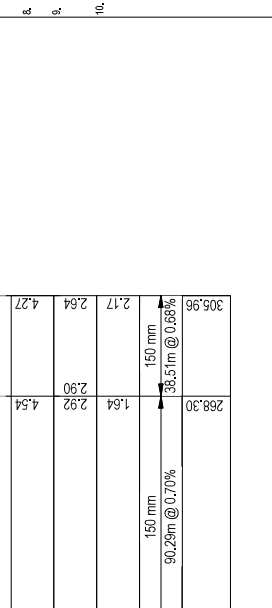
Project no.
 BOP0749

Scale
 AS SHOWN

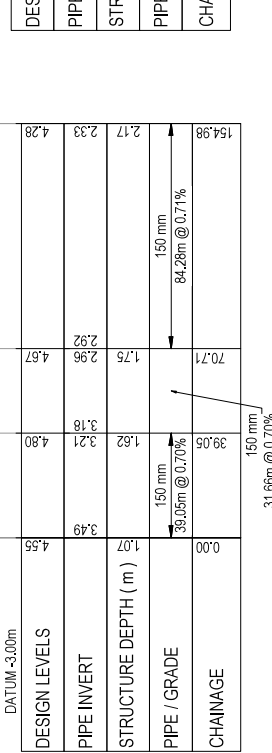
Cad file
 BPP0749CS02.DWG

Drawing no.
 CS20-17

Rev
 B



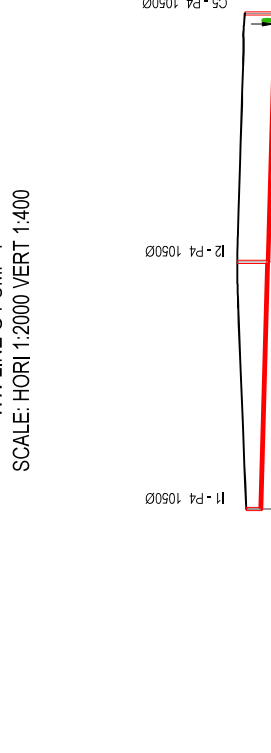
WW LINE H-PUMP 4
 SCALE: HORI 1:2000 VERT 1:400



WW LINE G-PUMP 4
 SCALE: HORI 1:2000 VERT 1:400



WW LINE I-PUMP 4
 SCALE: HORI 1:2000 VERT 1:400



WW LINE P-PUMP 4
 SCALE: HORI 1:2000 VERT 1:400

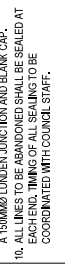
FOR CONSENT

- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING IS 10% GRANULAR BEDDING (D - 20% FINE) OVER 150MM GRANULAR BEDDING (D - 20% FINE) OVER WEAK CONCRETE BEDDING (M/PA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 50MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THE MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARPILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL BE 1500MM DIA. UNLESS OTHERWISE SPECIFIED. ALL LINES ARE TO BE 1500MM DIA UNLESS SHOWN OTHERWISE.
 - 150MM DIA PRESS THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM DIA 150MM DIA LUNGEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TYPING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 --- PR GROUND LEVEL
 - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

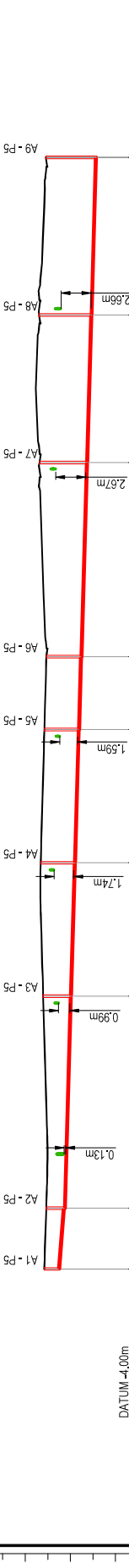


Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title	PROPOSED WASTEWATER LONG SECTION
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP094520/DWG
Drawing no.	C520-18
Rev	B

ORIGINAL SIZE: A3

Station	A1 - P5 10500	A2 - P5 10500	A3 - P5 10500	A4 - P5 10500	A5 - P5 10500	A6 - P5 10500	A7 - P5 10500	A8 - P5 10500	A9 - P5 10500
CHAINAGE	0.00	26.90	120.66	179.66	238.69	270.87	366.77	421.97	491.74
PIPE / GRADE	2.50	1.97	2.56	3.11	3.15	3.20	4.32	4.73	4.55
PIPE INVERT	3.88	2.07	1.42	1.10	0.75	0.54	0.02	-0.37	-0.78
DESIGN LEVELS	3.88	3.70	3.96	4.19	3.87	3.70	4.31	4.33	3.74
STRUCTURE DEPTH (m)	1.38	1.74	2.56	3.11	3.15	3.20	4.32	4.73	4.55
PIPE / GRADE	26.90m @ 1.55%	93.76m @ 0.55%	59.00m @ 0.55%	59.03m @ 0.55%	42.18m @ 0.55%	38.57m @ 0.55%	85.90m @ 0.55%	65.20m @ 0.55%	69.78m @ 0.55%
PIPE INVERT	0.13m	0.99m	1.74m	1.59m	2.67m	2.66m	1.50m	2.66m	2.66m



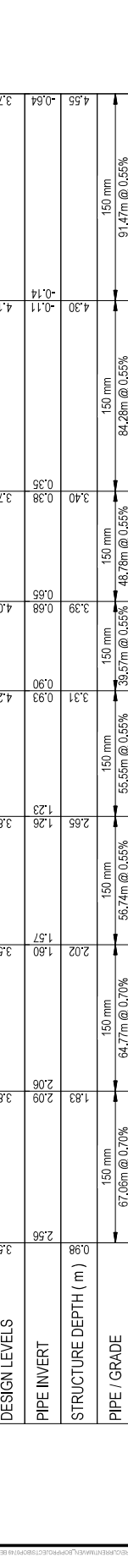
WW LINE A-PUMP 5
 SCALE: HORI 1:2000 VERT 1:400

Station	B1 - P5 10500	B3 - P5 10500	B4 - P5 10500	B5 - P5 10500	B6 - P5 10500	B7 - P5 10500	B8 - P5 10500	B9 - P5 10500	A9 - P5 10500
CHAINAGE	67.06	131.83	188.58	244.13	283.70	332.48	416.77	508.24	
PIPE / GRADE	67.06m @ 0.70%	64.77m @ 0.70%	66.74m @ 0.55%	55.56m @ 0.55%	38.57m @ 0.55%	48.78m @ 0.55%	84.28m @ 0.55%	91.47m @ 0.55%	
PIPE INVERT	2.06	2.02	2.65	3.31	3.99	4.07	4.30	4.55	
DESIGN LEVELS	3.88	3.59	3.89	4.20	4.07	3.74	4.16	4.55	
STRUCTURE DEPTH (m)	1.83	1.60	1.26	0.93	0.88	0.35	-0.11	-0.64	
PIPE INVERT	2.09	1.57	1.23	0.90	0.90	0.38	-0.14	-0.64	
DESIGN LEVELS	3.54	3.24	3.74	4.20	4.07	3.74	4.16	4.55	



WW LINE B-PUMP 5
 SCALE: HORI 1:2000 VERT 1:400

Station	B1 - P5 10500	B3 - P5 10500	B4 - P5 10500	B5 - P5 10500	B6 - P5 10500	B7 - P5 10500	B8 - P5 10500	B9 - P5 10500	A9 - P5 10500
CHAINAGE	67.06	131.83	188.58	244.13	283.70	332.48	416.77	508.24	
PIPE / GRADE	67.06m @ 0.70%	64.77m @ 0.70%	66.74m @ 0.55%	55.56m @ 0.55%	38.57m @ 0.55%	48.78m @ 0.55%	84.28m @ 0.55%	91.47m @ 0.55%	
PIPE INVERT	2.06	2.02	2.65	3.31	3.99	4.07	4.30	4.55	
DESIGN LEVELS	3.88	3.59	3.89	4.20	4.07	3.74	4.16	4.55	
STRUCTURE DEPTH (m)	1.83	1.60	1.26	0.93	0.88	0.35	-0.11	-0.64	
PIPE INVERT	2.09	1.57	1.23	0.90	0.90	0.38	-0.14	-0.64	
DESIGN LEVELS	3.54	3.24	3.74	4.20	4.07	3.74	4.16	4.55	



FOR CONSENT

NOTES:
 1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 2. CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
 3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 4. PIPE BEDDING - 10% GRANULAR BEDDING 10 - 20% WEAR CONCRETE BEDDING GREATER THAN 20% UNLESS OTHERWISE SPECIFIED.
 5. BEDDING (UMPA PLUS ANTI SCOUR BLOCKS AT JOINTS).
 6. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF PIPE LAYING AND EXTENDING FROM THE SURFACE TO THE TOP OF THE PIPE. ALL GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 7. APPROVED HARDFILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 8. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
 9. ALL LINES ARE TO BE 150MM PVC CLASS S116 UNLESS OTHERWISE SPECIFIED.
 10. 150MM ID PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM ID ON A 150MM LUNGEN JUNCTION AND BLANK CAP.
 11. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

————	PR GROUND LEVEL
-----	EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

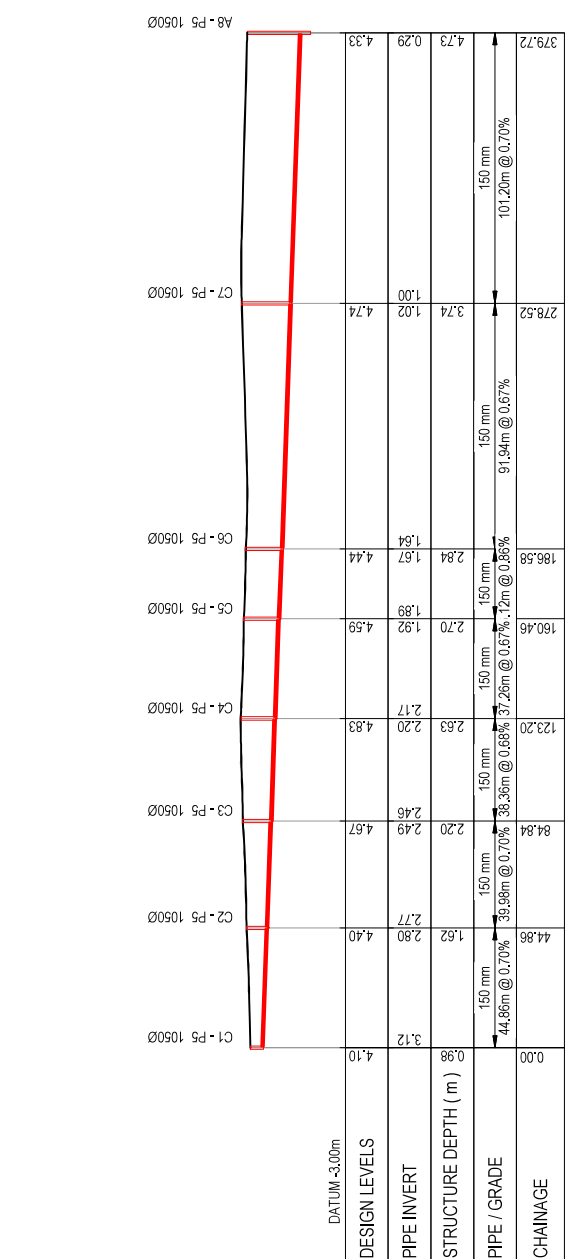
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



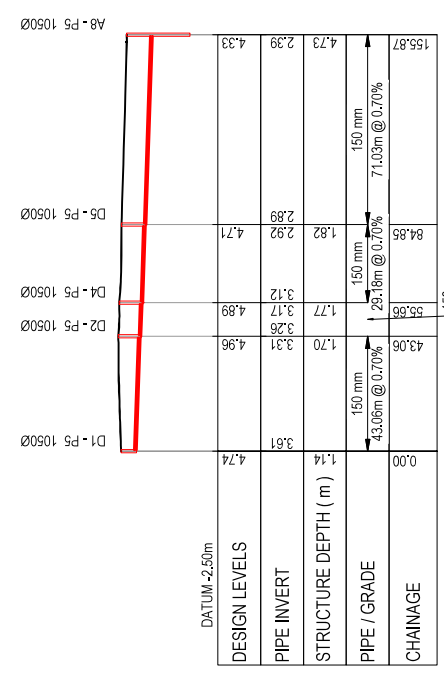
Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01952020/DWG
Drawing no.	CS20-19
Rev	B



WW LINE C-PUMP 5
 SCALE: HORI 1:2000 VERT 1:400



WW LINE D-PUMP 5
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 2. CO-ORDINATES OF BAY OF PLENTY 2000.
 3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 4. PIPE BEDDING OF 10% GRANULAR BEDDING 10-20% BEDDING OF 10% GRANULAR BEDDING 10-20% BEDDING OF 10% GRANULAR BEDDING 10-20% WEAK CONCRETE BEDDING (M/PA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
 5. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED 100MM FROM THE WIRE AND INSTALLED AT THE TOP OF THE WIRE. MARKERS SHALL BE PLACED AT 150MM INTERVALS ALONG THE ENTIRE LENGTH OF THE WIRE. CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 6. APPROVED HARPILLIBS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 7. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN ALL MANHOLES. ALL MANHOLES SHALL HAVE EXTERNAL GATES INSTALLED.
 8. ALL LINES ARE TO BE 150MM Ø P/C CLASS S118 UNLESS SHOWN OTHERWISE.
 9. 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNDSIN JUNCTION AND BLANK CAP.
 10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TYPING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 ——— PR GROUND LEVEL
 - - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

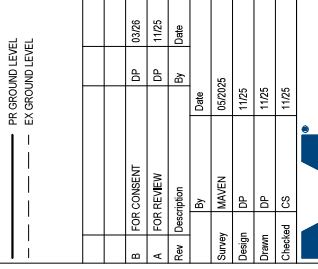
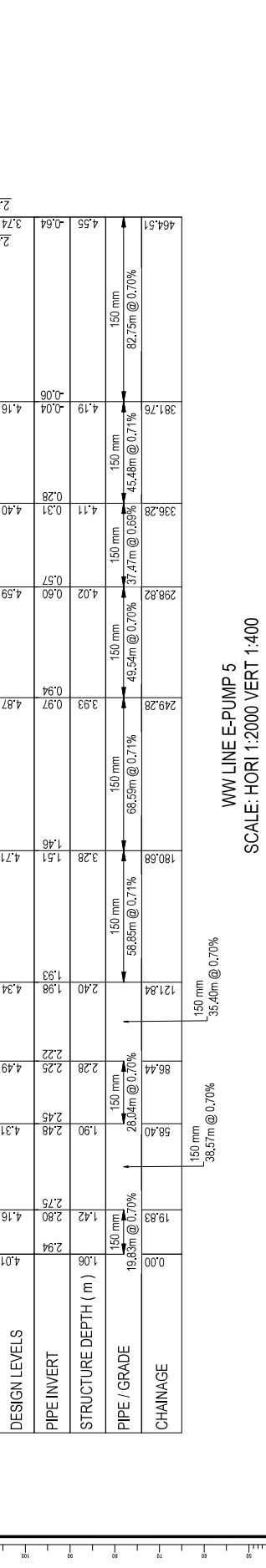
Survey	MAVEN	Date	05/2025
Design	DP	11/25	
Drawn	DP	11/25	
Checked	CS	11/25	



WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title: **PROPOSED WASTEWATER LONG SECTION**

Project no.: BOP0749
 Scale: AS SHOWN
 Client: BPP01652020/DWG
 Drawing no.: CS20-20
 Rev: B



DESIGN LEVELS	PIPE INVERT	STRUCTURE DEPTH (m)	PIPE / GRADE	CHAINAGE
4.35	1.12	1.12	150 mm	30.78
4.69	2.82	1.90	150 mm	93.24
4.95	2.42	2.59	150 mm	141.67
4.71	1.99	3.28	150 mm	202.77

DESIGN LEVELS	PIPE INVERT	STRUCTURE DEPTH (m)	PIPE / GRADE	CHAINAGE
4.01	1.06	1.06	150 mm	0.00
4.16	1.42	2.80	150 mm	19.83
4.31	2.48	1.90	150 mm	58.40
4.49	2.22	2.28	150 mm	86.44
4.34	1.98	2.40	150 mm	121.84
4.71	1.46	3.28	150 mm	180.68
4.87	0.94	3.93	150 mm	249.28
4.59	0.60	4.02	150 mm	298.82
4.40	0.31	4.11	150 mm	336.28
4.16	-0.04	4.19	150 mm	381.76
3.74	-0.64	4.55	150 mm	464.51

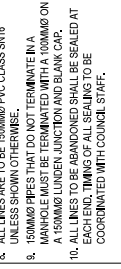
FOR CONSENT

- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING 0-10% GRANULAR BEDDING 10-20% BEDDING TO BE CONCRETE BEDDING TO BE WEAK CONCRETE BEDDING (MPA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THE MARKER POST SHALL BE PLACED 100MM FROM THE MARKER INSTALLED AT THE TOP OF THE MANHOLE. THE CONNECTION SHALL BE MARKED TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARPILLER IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLES SHALL BE 1500mm DIA. ALL MANHOLES SHALL HAVE STAINLESS STEEL FRAMES.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS S118 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø x 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 ——— PR GROUND LEVEL
 - - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



Project
WAIRAKEI SOUTH FTA090
DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD
LIMITED PARTNERSHIP

Title
PROPOSED
WASTEWATER
LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP019452010.DWG
Drawing no.	C520-21
Rev	B

WW LINE H-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

CHAINAGE	31.97	126.17	149.10
PIPE / GRADE	1.15	22.52m @ 0.71%	150 mm
STRUCTURE DEPTH (m)	1.83	94.20m @ 1.00%	150 mm
DESIGN LEVELS	4.11	4.40	4.40
PIPE INVERT	2.50	2.67	2.50

DATUM -2.00m

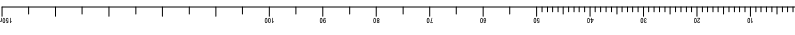
WW LINE I-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

CHAINAGE	0.00	29.67	53.98	82.65	178.46	270.94
PIPE / GRADE	2.75	29.67m @ 0.70%	150 mm	2.23	96.81m @ 0.70%	150 mm
STRUCTURE DEPTH (m)	2.54	4.14	2.31	2.11	3.37	92.18m @ 0.70%
DESIGN LEVELS	4.00	4.14	4.31	4.31	4.82	4.31
PIPE INVERT	2.54	2.51	2.34	2.08	1.41	0.74

DATUM -3.00m

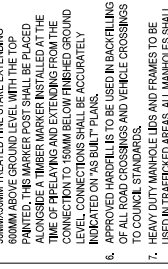
WW LINE I-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT



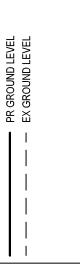
NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
- CO-ORDINATES IN TERMS OF PLENTY 2000.
- REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE POINTS THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- PIPE BEDDING 0-10% GRANULAR BEDDING 10-20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (MMPA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
- EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP MARKED WITH A 150MMx150MMx10MM SIGN. TO ALLOW FOR A TIMBER LAGER INSTALLED AT THE TIME OF PIPELAYING AND EXTENDING FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
- APPROVED HARPELLIS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- CONNECTIONS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
- ALL LINES ARE TO BE 150MM Ø PVC CLASS SM18 UNLESS SHOWN OTHERWISE.
- 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNDSIN JUNCTION AND BLANK CAP.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	06/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

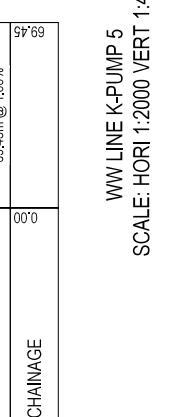
Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01952501DWG
Drawing no.	CS20-22
Rev	B



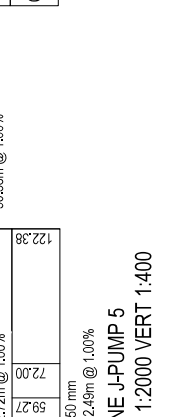
WW LINE J-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

DATUM -2.00m	
DESIGN LEVELS	4.49
PIPE INVERT	4.23
STRUCTURE DEPTH (m)	1.43
PIPE / GRADE	36.78m @ 1.00%
CHAINAGE	0.00



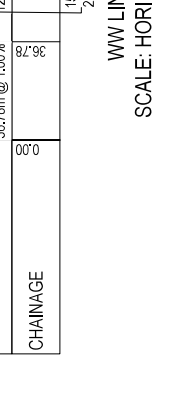
WW LINE K-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

DATUM -4.00m	
DESIGN LEVELS	4.59
PIPE INVERT	3.10
STRUCTURE DEPTH (m)	1.47
PIPE / GRADE	69.45m @ 1.00%
CHAINAGE	0.00



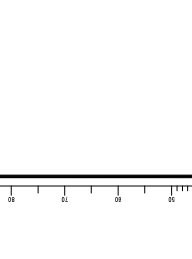
WW LINE M-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

DATUM -5.00m	
DESIGN LEVELS	4.65
PIPE INVERT	3.26
STRUCTURE DEPTH (m)	1.41
PIPE / GRADE	53.16m @ 0.70%
CHAINAGE	0.00



WW LINE L-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

DATUM -3.00m	
DESIGN LEVELS	4.34
PIPE INVERT	3.26
STRUCTURE DEPTH (m)	1.17
PIPE / GRADE	55.69m @ 0.70%
CHAINAGE	0.00



WW LINE N-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

DATUM -2.00m	
DESIGN LEVELS	4.30
PIPE INVERT	3.06
STRUCTURE DEPTH (m)	1.31
PIPE / GRADE	53.41m @ 0.70%
CHAINAGE	0.00

WW LINE J-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

Station	105000	105000	105000
Design Level	4.49	4.23	3.97
Pipe Invert	4.23	2.80	2.53
Structure Depth	1.43	1.55	1.77
Chainage	0.00	36.78	72.00

WW LINE K-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

Station	105000	105000	105000
Design Level	4.59	3.10	69.45
Pipe Invert	3.10	3.10	3.10
Structure Depth	1.47	0.00	4.32
Chainage	0.00	69.45	69.45

WW LINE M-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

Station	105000	105000	105000
Design Level	4.65	3.26	53.16
Pipe Invert	3.26	3.26	3.26
Structure Depth	1.41	0.00	3.11
Chainage	0.00	53.16	53.16

WW LINE L-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

Station	105000	105000	105000
Design Level	4.34	3.26	55.69
Pipe Invert	3.26	3.26	3.26
Structure Depth	1.17	0.00	2.56
Chainage	0.00	55.69	55.69

WW LINE N-PUMP 5
SCALE: HORI 1:2000 VERT 1:400

Station	105000	105000	105000
Design Level	4.30	3.06	53.41
Pipe Invert	3.06	3.06	3.15
Structure Depth	1.31	0.00	3.15
Chainage	0.00	53.41	53.41

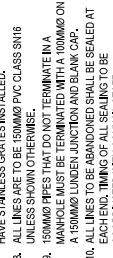
FOR CONSENT

- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING IS 10% GRANULAR BEDDING 10-20% WEAK CONCRETE BEDDING (MCPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THE MARKER POST SHALL BE PLACED 700MM FROM THE MANHOLE TO THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARPILLIS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED FOR ALL MANHOLES. ALL MANHOLES SHALL HAVE STAINLESS STEEL LIDS.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS S118 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø x A 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TYPING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 - - - - - PR GROUND LEVEL
 - - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

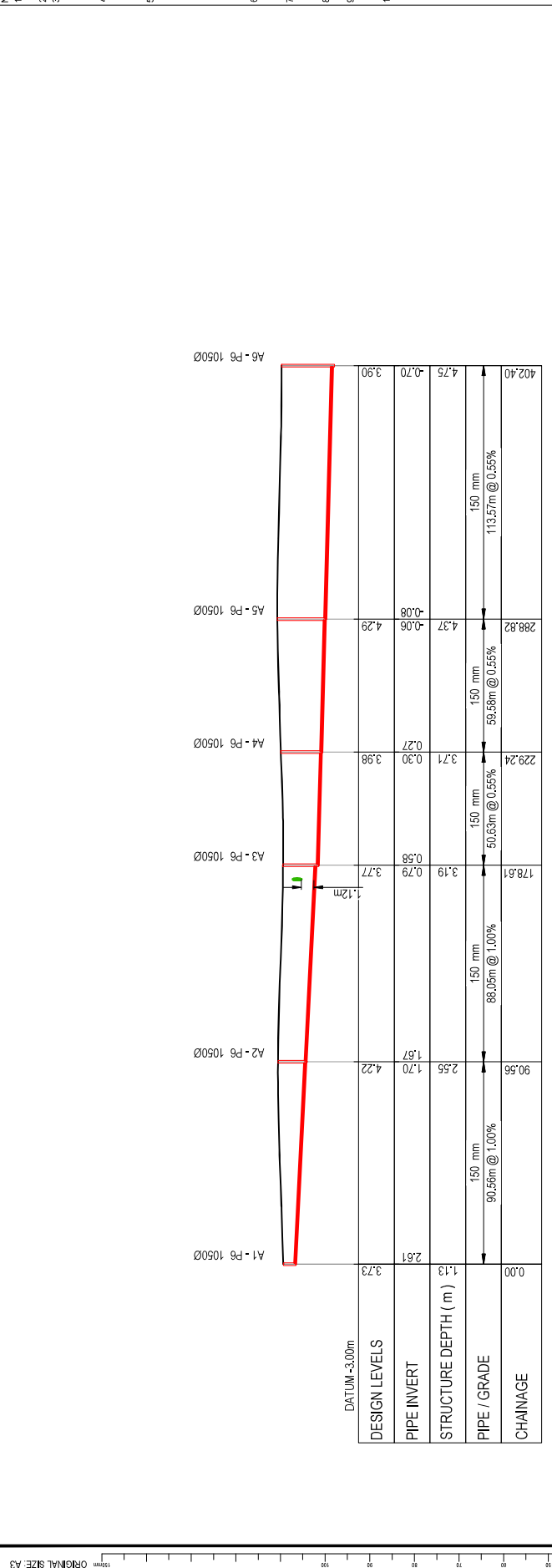
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



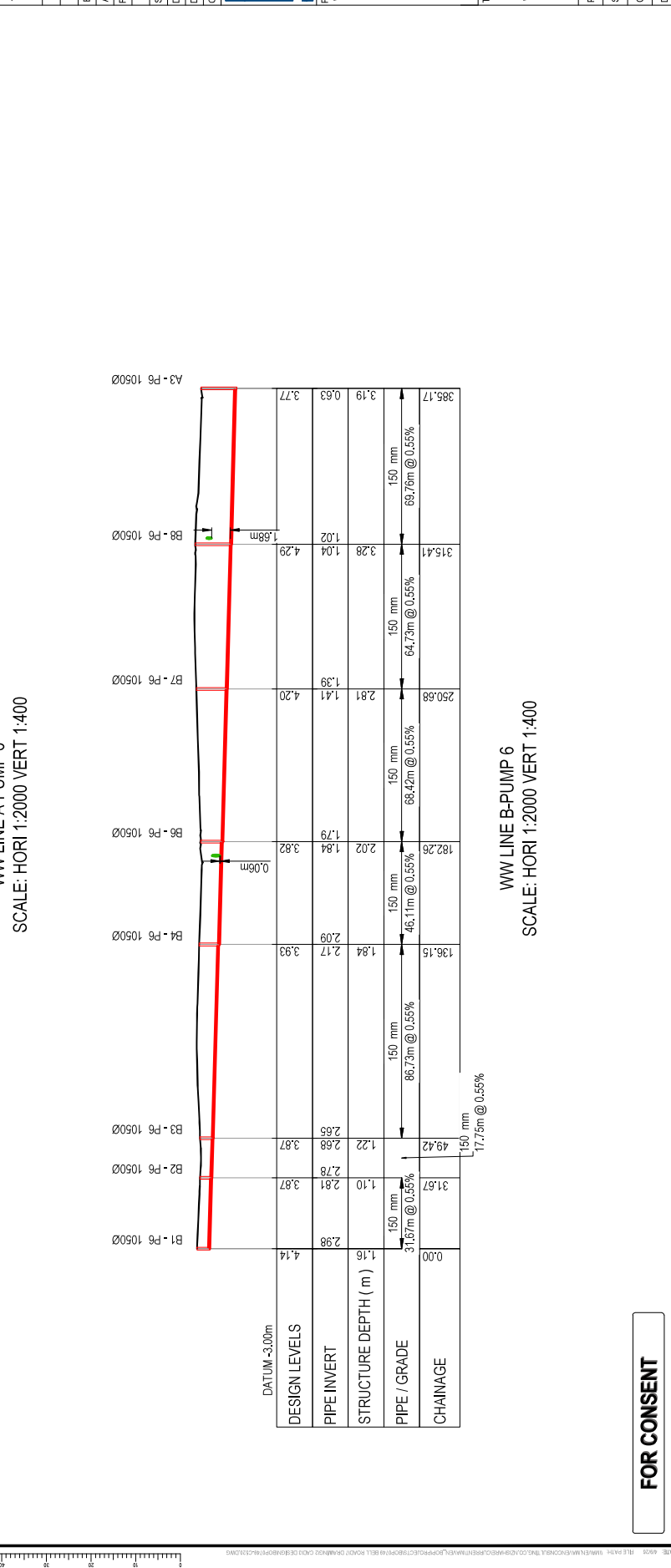
Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP019452020/DWG
Drawing no.	C520-23
Rev	B



WW LINE A-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400



WW LINE B-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

SCALE: HORI 1:2000 VERT 1:400

Station	Chainage	Grade	Depth	Flow	Notes
F1 - P6 10500	66.13	1.31	2.55	3.87	
F2 - P6 10500	124.79	2.18	2.09	4.28	0.63m
F3 - P6 10500	181.88	2.91	1.64	4.55	
F4 - P6 10500	247.08	2.48	1.23	3.71	
F5 - P6 10500	284.09	2.85	1.03	3.95	
F6 - P6 10500	339.40	3.71	0.70	4.37	
F7 - P6 10500	394.10	3.70	0.36	4.05	
F7 - P6 10500	445.10	3.75	0.06	3.73	1.90m

WW LINE F-PUMP 6
SCALE: HORI 1:2000 VERT 1:400

Station	Chainage	Grade	Depth	Flow	Notes
G1 - F6 10500	4.66	1.59	3.06	4.50	
G2 - F6 10500	34.88	2.82	2.79	4.50	
F2 - P6 10500	63.13	2.18	2.60	4.28	

WW LINE G-PUMP 6
SCALE: HORI 1:2000 VERT 1:400

Station	Chainage	Grade	Depth	Flow	Notes
H1 - P6 10500	4.23	1.44	2.79	4.23	
H2 - P6 10500	48.76	1.58	2.45	3.98	
F4 - P6 10500	105.47	2.48	2.00	3.71	

WW LINE H-PUMP 6
SCALE: HORI 1:2000 VERT 1:400

Station	Chainage	Grade	Depth	Flow	Notes
I1 - P6 10500	3.03	2.54	3.98	3.98	
I2 - P6 10500	68.79	1.58	2.54	3.98	0.22m

WW LINE I-PUMP 6
SCALE: HORI 1:2000 VERT 1:400

- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - REFRIGERANT GAS GRANULAS BEDDING 10-20% WEAK CONCRETE BEDDING GREATER THAN 90% WEAK CONCRETE BEDDING (MPA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THE MARKER POST SHALL BE PLACED AT THE END OF THE PIPE AND THE OTHER END OF THE PIPE SHALL BE PLACED AT THE TIME OF REPLACING AND EXTENDING FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDROLL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLES SHALL BE 1500MM DIA. UNLESS SHOWN OTHERWISE.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS SN18 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	Date	05/2025
Design	DP		11/25
Drawn	DP		11/25
Checked	CS		11/25



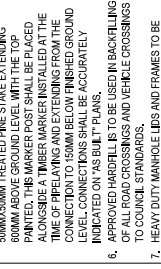
Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title#
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Cad file	BPOPP062502.DWG
Drawing no.	CS20-25
Rev	B

FOR CONSENT

- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING OF 15% GRANULAR BEDDING 10, 20% WEAK CONCRETE BEDDING (M/PA PLUS ANTISCOUR BLOCKS AT 9M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THE MARKER POST SHALL BE PLACED AT THE POINT OF CONNECTION TO THE PIPE. THE TIME OF BRACING AND EXTENDING FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDROLL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLES SHALL BE 1500MM DIA. MANHOLES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS S16 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LINDEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	06/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

Maven Bay of Plenty
 116 Cameron Street, Tauranga
 www.maven.co.nz
 (07) 574 0000

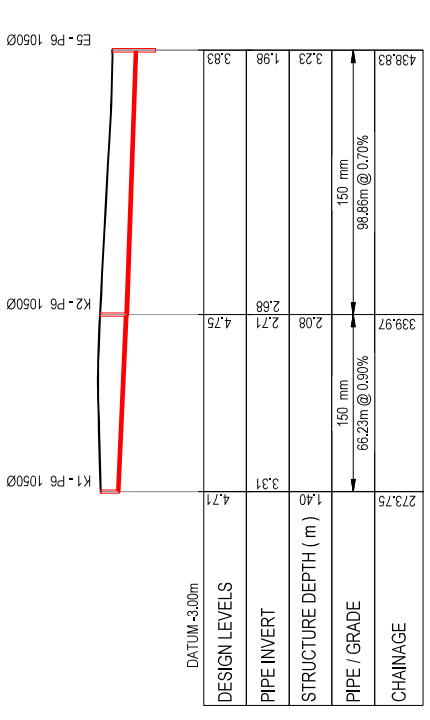
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01962020DWG
Drawing no.	CS20-26

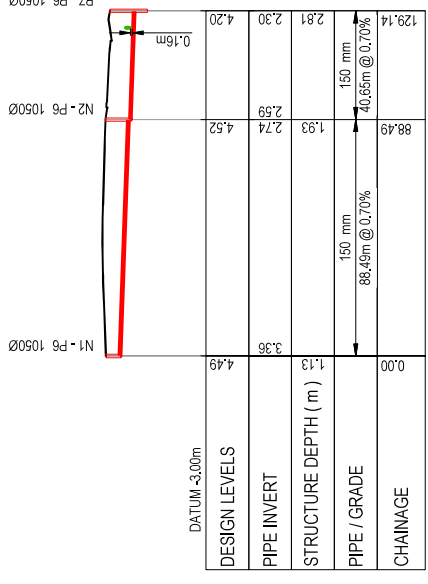
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01962020DWG
Drawing no.	CS20-26

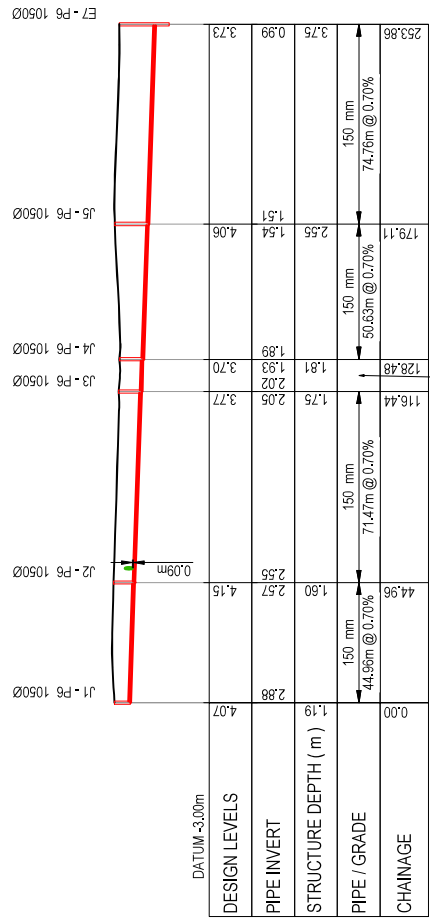
Rev	B
-----	---



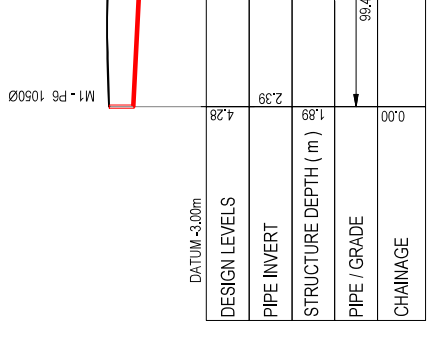
WW LINE K-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400



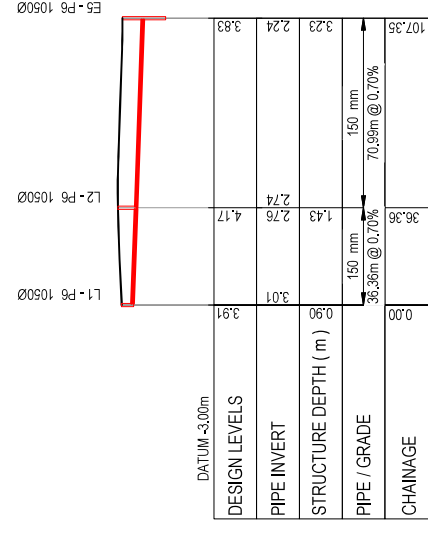
WW LINE N-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400



WW LINE J-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400



WW LINE M-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400



WW LINE L-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

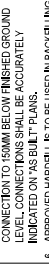


- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING IS 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING (M/PA PLUS ANTI SCOUR BLOCKS AT 9M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED 100MM FROM THE CENTERLINE AND AT THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARPILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLE LIDS AND FRAMES SHALL HAVE STAINLESS STEEL COATING.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS S118 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LINDEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 --- PR GROUND LEVEL
 - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

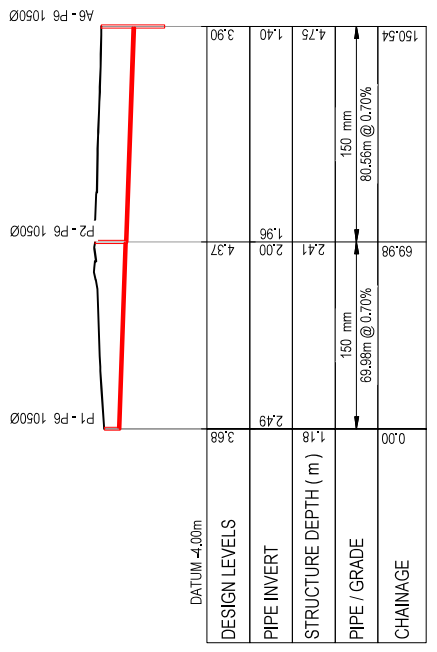


Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

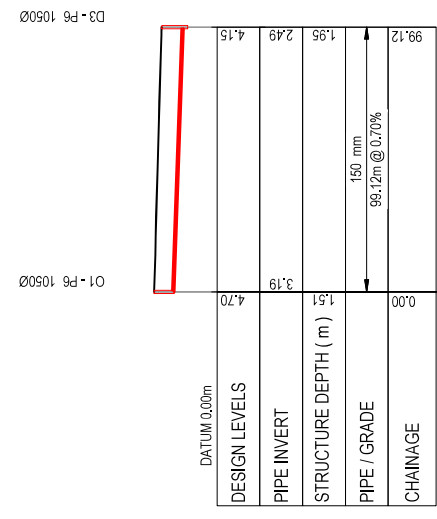
Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01945201DWG
Drawing no.	CS20-27

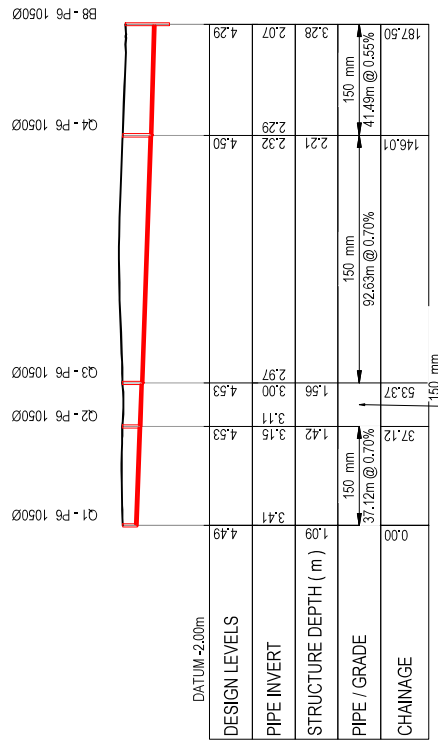
Rev	B
-----	---



WW LINE P-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400



WW LINE O-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400



WW LINE Q-PUMP 6
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

NOTES

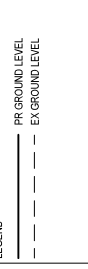
1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
2. CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
4. PIPE BEDDING TO BE 15% GRANULAR BEDDING (0.55% SLOPE) WITH 10% SAND AND 5% GRAVEL. WEAK CONCRETE BEDDING (MMPA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
5. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED AT THE POINT WHERE THE PIPE ENDS AT THE TIME OF BELAYING AND SETTING OUT THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
6. APPROVED HARPILLIS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
7. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLE LIDS AND FRAMES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
8. ALL LINES ARE TO BE 150MM Ø PVC CLASS SM16 UNLESS SHOWN OTHERWISE.
9. 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø IN A 150MM Ø LUNDSIN JUNCTION AND BLANK CAP.
10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

— PR GROUND LEVEL
 - - - EX GROUND LEVEL

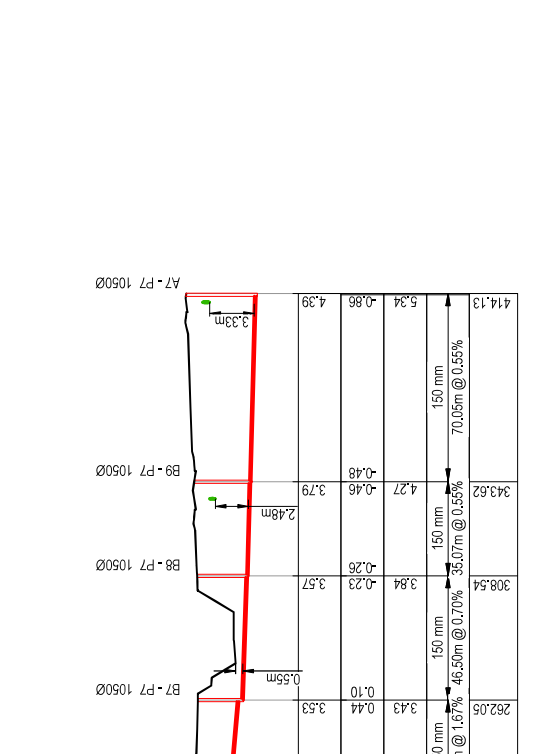
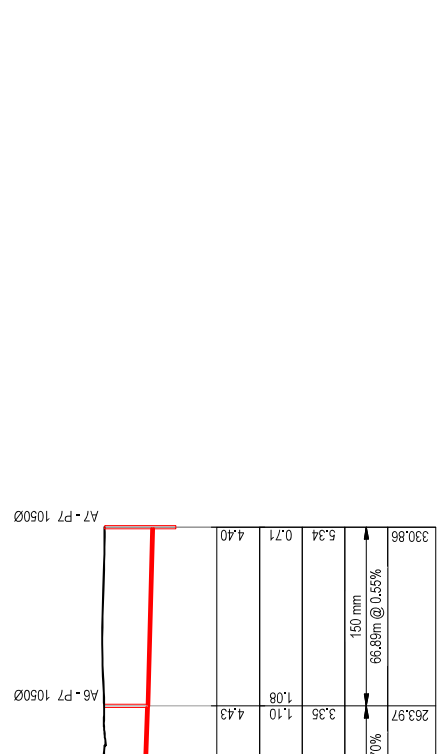
Rev	Description	By	Date
A	FOR REVIEW	DP	11/25
B	FOR CONSENT	DP	03/26

Survey	MAVEN	06/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title	PROPOSED WASTEWATER LONG SECTION
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01952020DWG
Drawing no.	CS20-28
Rev	B



DATUM -4.00m	
DESIGN LEVELS	
PIPE INVERT	
STRUCTURE DEPTH (m)	
PIPE / GRADE	
CHAINAGE	

DATUM -4.00m	
DESIGN LEVELS	
PIPE INVERT	
STRUCTURE DEPTH (m)	
PIPE / GRADE	
CHAINAGE	

DATUM -4.00m	
DESIGN LEVELS	
PIPE INVERT	
STRUCTURE DEPTH (m)	
PIPE / GRADE	
CHAINAGE	

FOR CONSENT

WW LINE C-PUMP 7
 SCALE: HORI 1:2000 VERT 1:400

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
- COORDINATES IN TERMS OF BAY OF PLENTY 2000.
- REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- REINFORCING IS 16% GRANULAR BEDDING 10 - 20% WEAR COURSE. CONCRETE BEDDING GREATER THAN 20% WEAR CONCRETE BEDDING (MPA PLUS ANTI SCOUR BLOCKS AT 5M CRS).
- EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED 100MM FROM THE END OF THE PIPE. THE TIME OF REPLACING AND EXTENDING FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL, CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
- APPROVED HARDPILES TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- HEAVY DUTY MANHOLES AND FRAMES TO BE USED. ALL MANHOLES SHALL BE 1000MM DIA. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
- ALL LINES ARE TO BE 150MM Ø PVC CLASS S116 UNLESS SHOWN OTHERWISE.
- 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø CON A 150MM Ø LINDEN JUNCTION AND BLANK CAP.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

— PR GROUND LEVEL
 - - - - - EG GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

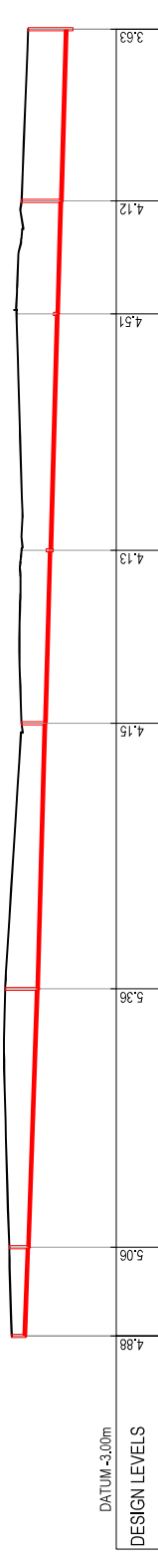
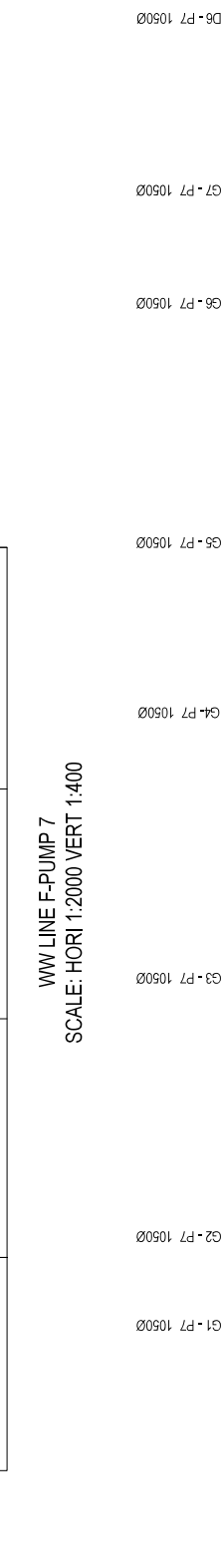
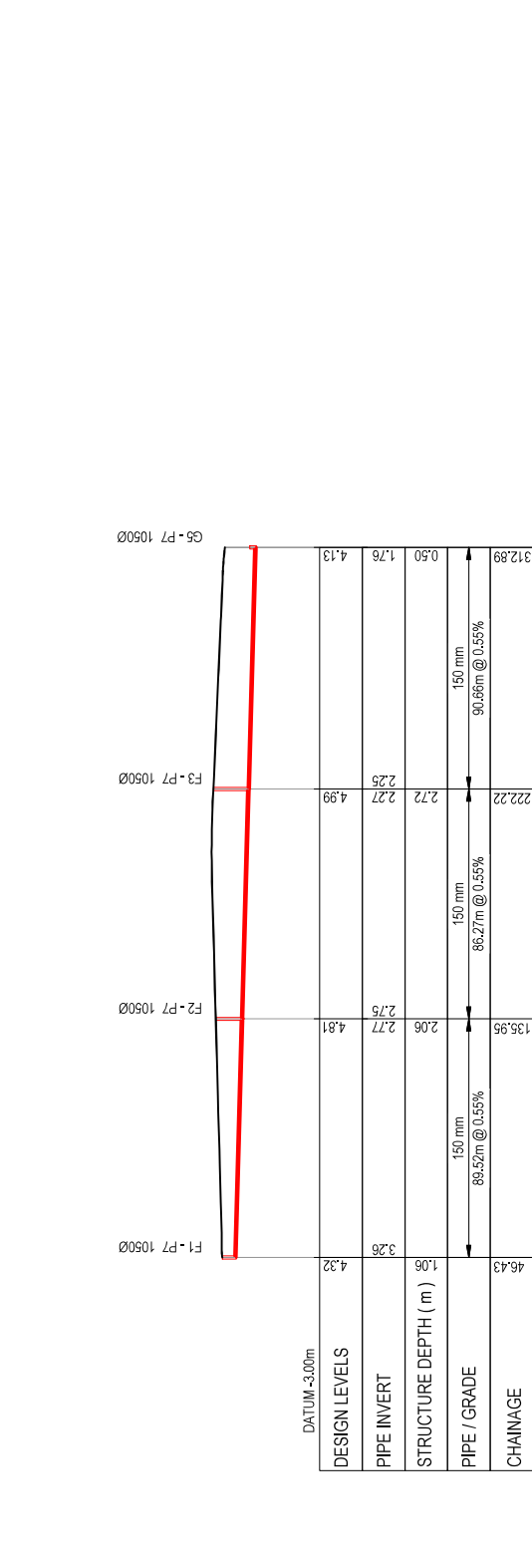


Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01962020.DWG
Drawing no.	CS20-30

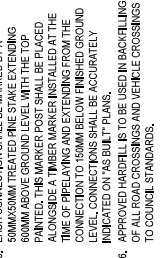
Rev B



FOR CONSENT

NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
2. CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
3. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
4. PIPE BEDDING: 1- 10% GRANULAR BEDDING; 10 - 20% BEDDING OF 150MM SAND; 20% BEDDING OF 150MM SAND WITH 5% FINE SAND; 3- 15% CONCRETE BEDDING (MIPAPLUS WITH SOUR BLOCKS AT 8M CRS).
5. EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE POINT OF CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
6. APPROVED HARDPILES TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
7. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL HAVE LIDS AND FRAMES INSTALLED.
8. MANHOLES TO BE 1500mm PVC CLASS S16 UNLESS SHOWN OTHERWISE.
9. 150MM Ø PRES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNDSIN JUNCTION AND BLANK CAP.
10. ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



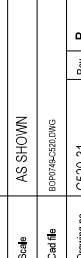
DATUM -3.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

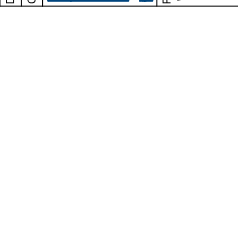


DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

DATUM -2.00m	
DESIGN LEVELS	4.61
PIPE INVERT	3.19
STRUCTURE DEPTH (m)	1.42
PIPE / GRADE	150 mm 72.16m @ 0.70%
CHAINAGE	0.00



DATUM -3.00m	
DESIGN LEVELS	4.27
PIPE INVERT	2.83
STRUCTURE DEPTH (m)	1.34
PIPE / GRADE	150 mm 51.31m @ 0.66%
CHAINAGE	0.00



DATUM -3.00m	
DESIGN LEVELS	4.13
PIPE INVERT	2.59
STRUCTURE DEPTH (m)	3.08
PIPE / GRADE	150 mm 75.04m @ 0.70%
CHAINAGE	0.00

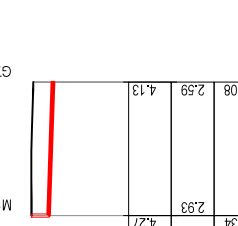


DATUM -3.00m	
DESIGN LEVELS	4.13
PIPE INVERT	2.59
STRUCTURE DEPTH (m)	3.08
PIPE / GRADE	150 mm 75.04m @ 0.70%
CHAINAGE	0.00

DATUM -2.00m	
DESIGN LEVELS	4.47
PIPE INVERT	2.87
STRUCTURE DEPTH (m)	2.15
PIPE / GRADE	150 mm 72.16m @ 0.70%
CHAINAGE	0.00



DATUM -3.00m	
DESIGN LEVELS	4.27
PIPE INVERT	2.83
STRUCTURE DEPTH (m)	1.34
PIPE / GRADE	150 mm 51.31m @ 0.66%
CHAINAGE	0.00

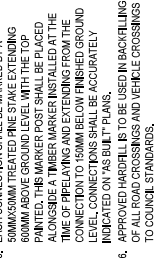


DATUM -3.00m	
DESIGN LEVELS	4.13
PIPE INVERT	2.59
STRUCTURE DEPTH (m)	3.08
PIPE / GRADE	150 mm 75.04m @ 0.70%
CHAINAGE	0.00



DATUM -3.00m	
DESIGN LEVELS	4.13
PIPE INVERT	2.59
STRUCTURE DEPTH (m)	3.08
PIPE / GRADE	150 mm 75.04m @ 0.70%
CHAINAGE	0.00

FOR CONSENT



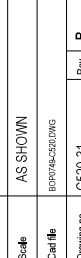
DATUM -3.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

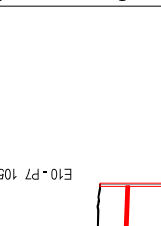


DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

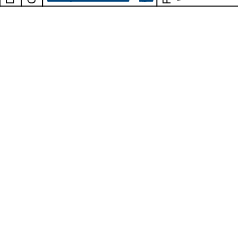
FOR CONSENT



DATUM -3.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

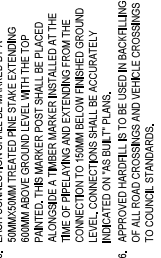


DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

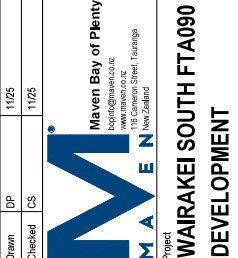
FOR CONSENT



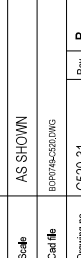
DATUM -3.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

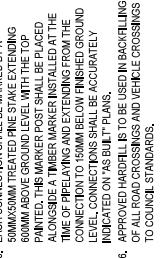


DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

FOR CONSENT



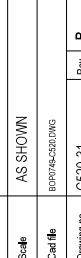
DATUM -3.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

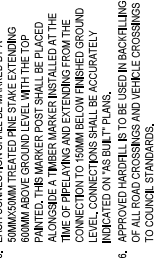


DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

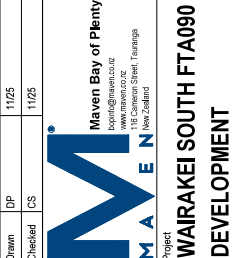
FOR CONSENT



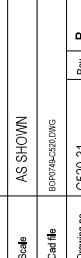
DATUM -3.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

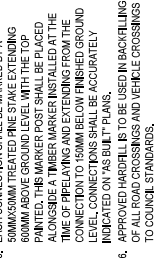


DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

FOR CONSENT



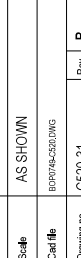
DATUM -3.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

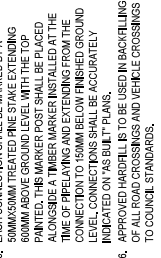


DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

FOR CONSENT



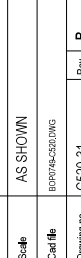
DATUM -3.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	4.06
PIPE INVERT	3.84
STRUCTURE DEPTH (m)	1.30
PIPE / GRADE	150 mm 44.06m @ 0.56%
CHAINAGE	0.00

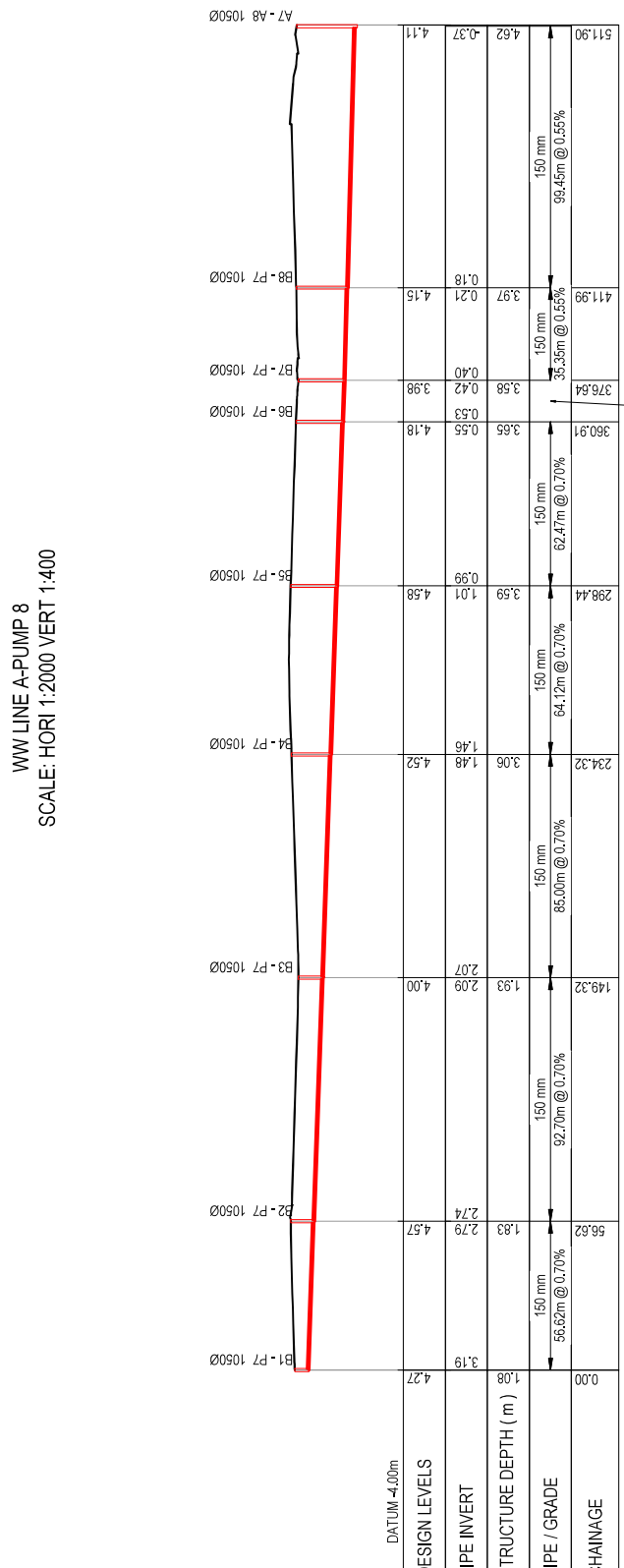
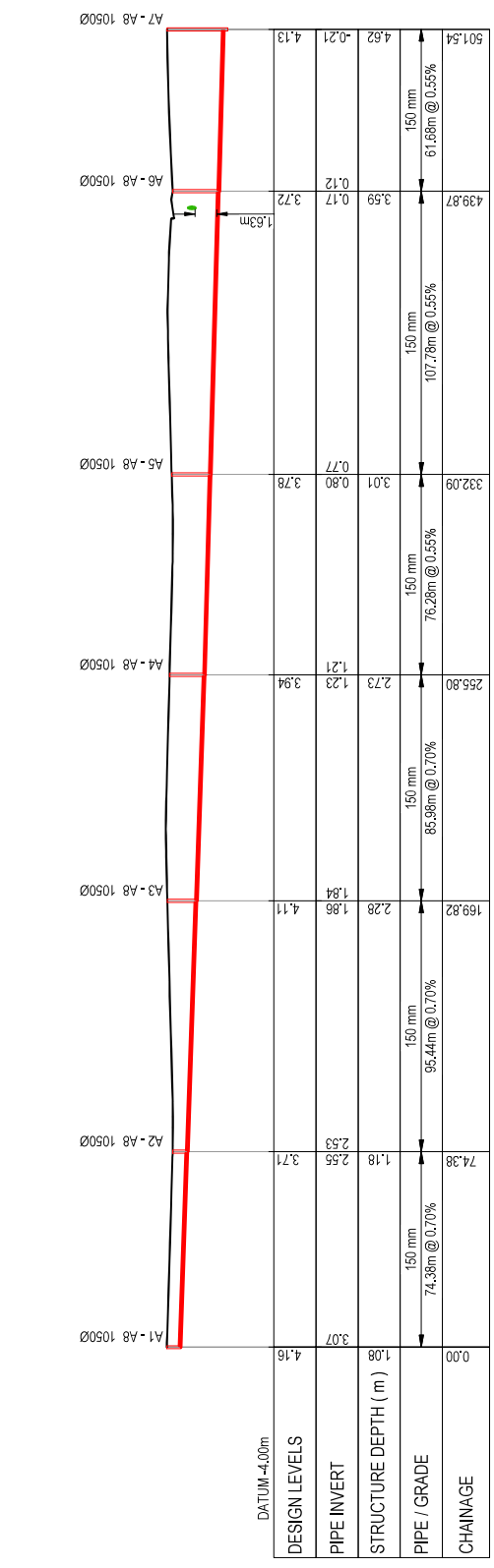


DATUM	
-------	--

- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING 1- 10% GRANULAR BEDDING 10 - 20% BEDDING WITH 10% GRANULAR BEDDING AT WEAK CONCRETE BEDDING (MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HANDPILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE IRIS AND FRAMES TO BE USED. TRAPPED AREAS SHALL BE USED. MANHOLES SHALL BE 1500MM DIA. UNLESS SHOWN OTHERWISE.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS S16 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM LUNDSIN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

—— PR GROUND LEVEL
 - - - - EX GROUND LEVEL



ORIGINAL SIZE: A3

DATE: 09/12/2024

FILE PATH: \\MVEN\WORKSPACE\PROJECTS\2024\11\WAIRAKEI SOUTH FTA090 DEVELOPMENT\BELL ROAD\DRAWINGS\PROPOSED\DWG\03200-32.DWG

FOR CONSENT



Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP09052024.DWG
Drawing no.	CS200-32
Rev	B

NOTES

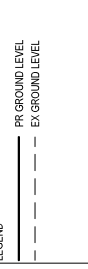
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
- COORDINATES IN TERMS OF BAY OF PLENTY 2000. REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
- PIPE BEDDING: 0- 10% GRANULAR BEDDING 10- 20% BEDDING WITHIN THE REMAINING 80% OF THE PIPE LENGTH. MEAN CONCRETE BEDDING (MPA) PLUS ANTI SCOUR BLOCKS AT 6M CRSL.
- EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE EXISTING GROUND LEVEL. THE MARKER SHALL BE CONNECTED TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
- APPROVED HARDPILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL BE 1500MM DIA. ALL MANHOLES SHALL BE CONCRETE. ALL LINES ARE TO BE 150MM Ø PVC CLASS SM19 UNLESS SHOWN OTHERWISE.
- 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LINDEN JUNCTION AND BLANK CAP.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

— PR GROUND LEVEL
 - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	06/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

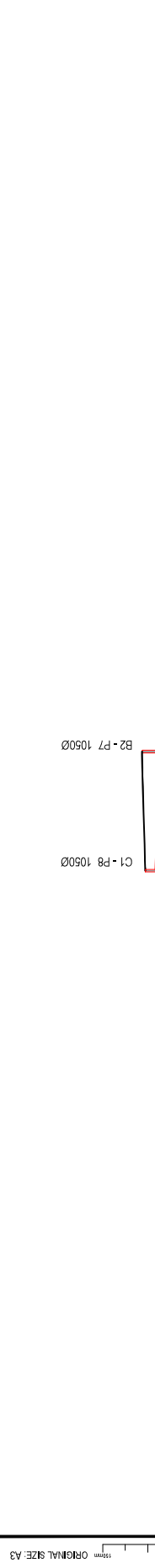


Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

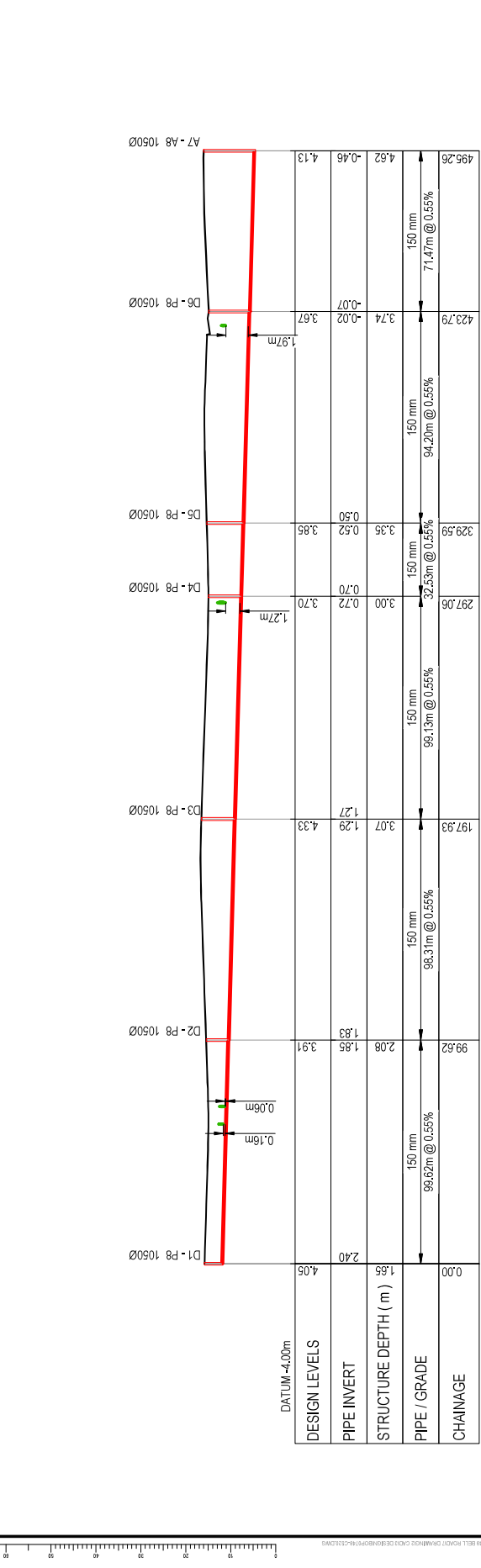
Project no. BOP0749
Scale AS SHOWN
Cad file BPOPPWCS020.DWG
Drawing no. CS20-33

Project no.	BOP0749
Scale	AS SHOWN
Cad file	BPOPPWCS020.DWG
Drawing no.	CS20-33
Rev	B



DATUM -3.00m	
DESIGN LEVELS	4.57
PIPE INVERT	4.28
STRUCTURE DEPTH (m)	1.08
PIPE / GRADE	150 mm 53.03m @ 0.70%
CHAINAGE	0.00

WW LINE C-PUMP 8
 SCALE: HORI 1:2000 VERT 1:400

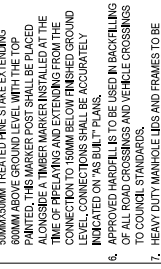


WW LINE D-PUMP 8
 SCALE: HORI 1:2000 VERT 1:400

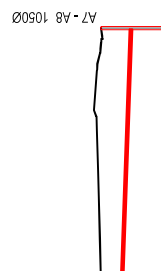
DESIGN LEVELS	4.05	3.91	4.33	3.70	3.85	3.67	4.13
PIPE INVERT	2.40	1.83	1.29	0.70	0.50	-0.07	-0.46
STRUCTURE DEPTH (m)	1.65	2.08	3.07	3.00	3.35	3.74	4.62
PIPE / GRADE	150 mm	150 mm	150 mm	150 mm	150 mm	150 mm	150 mm
CHAINAGE	0.00	99.82	197.93	297.06	329.59	423.79	496.26
99.52m @ 0.55%		99.31m @ 0.55%		32.53m @ 0.55%		94.20m @ 0.55%	
71.47m @ 0.55%							

FOR CONSENT

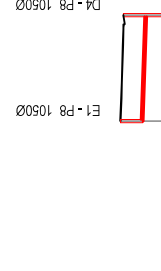
- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING TO BE 10% GRANULAR BEDDING TO 20% BEDDING TO BE 10% GRANULAR BEDDING TO 10% BEDDING TO BE 10% GRANULAR BEDDING TO 10% WEAK CONCRETE BEDDING (MPA PLUS WITH SCOUR BLOCKS AT 8M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED AT THE CENTER OF THE PIPE AND EXTEND TO THE TOP OF THE MANHOLE. THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
 - APPROVED HARDFILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS SN18 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø IN A 150MM Ø LUNDSIN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



DATUM -3.00m	
DESIGN LEVELS	39.56
PIPE INVERT	2.23
STRUCTURE DEPTH (m)	3.91
PIPE / GRADE	150 mm 39.56m @ 0.70%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	101.06
PIPE INVERT	1.80
STRUCTURE DEPTH (m)	4.13
PIPE / GRADE	150 mm 101.06m @ 0.70%
CHAINAGE	0.00



DATUM -4.00m	
DESIGN LEVELS	88.93
PIPE INVERT	1.69
STRUCTURE DEPTH (m)	3.67
PIPE / GRADE	150 mm 88.93m @ 0.70%
CHAINAGE	0.00

WW LINE E-PUMP 8
SCALE: HORI 1:2000 VERT 1:400

WW LINE F-PUMP 8
SCALE: HORI 1:2000 VERT 1:400

WW LINE G-PUMP 8
SCALE: HORI 1:2000 VERT 1:400

WW LINE H-PUMP 8
SCALE: HORI 1:2000 VERT 1:400

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	Date	05/2025
Design	DP	11/25	
Drawn	DP	11/25	
Checked	CS	11/25	

DATUM -2.00m	
DESIGN LEVELS	4.01
PIPE INVERT	2.77
STRUCTURE DEPTH (m)	1.23
PIPE / GRADE	150 mm 53.07m @ 0.70%
CHAINAGE	0.00

DATUM -4.00m	
DESIGN LEVELS	151.27
PIPE INVERT	1.69
STRUCTURE DEPTH (m)	2.27
PIPE / GRADE	150 mm 98.20m @ 0.70%
CHAINAGE	151.27

Maven Bay of Plenty
 116 Cameron Street, Tauranga
 www.maven.co.nz
 07 7700 2222

Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

DATUM -4.00m	
DESIGN LEVELS	230.94
PIPE INVERT	1.10
STRUCTURE DEPTH (m)	2.73
PIPE / GRADE	150 mm 79.67m @ 0.70%
CHAINAGE	230.94

DATUM -4.00m	
DESIGN LEVELS	326.74
PIPE INVERT	0.40
STRUCTURE DEPTH (m)	3.59
PIPE / GRADE	150 mm 96.80m @ 0.70%
CHAINAGE	326.74

DATUM -4.00m	
DESIGN LEVELS	326.74
PIPE INVERT	0.40
STRUCTURE DEPTH (m)	3.59
PIPE / GRADE	150 mm 96.80m @ 0.70%
CHAINAGE	326.74

Title: **PROPOSED WASTEWATER LONG SECTION**

Project no.: BOP0749

Scale: AS SHOWN

Cad file: BPP0749CS02.DWG

Drawing no.: CS20-34

Project: **WAIRAKEI SOUTH FTA090 DEVELOPMENT**

Location: **BELL ROAD, PAPAMOA**

Client: **FOR BELL ROAD LIMITED PARTNERSHIP**

Project: **WAIRAKEI SOUTH FTA090 DEVELOPMENT**

Location: **BELL ROAD, PAPAMOA**

Client: **FOR BELL ROAD LIMITED PARTNERSHIP**

Project: **WAIRAKEI SOUTH FTA090 DEVELOPMENT**

Location: **BELL ROAD, PAPAMOA**

Client: **FOR BELL ROAD LIMITED PARTNERSHIP**

FOR CONSENT

- NOTES:
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2002.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING 0 - 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% BEDDING TO BE IN ACCORDANCE WITH THE SPECIFICATIONS (MIPA PLUS) ANT SCOUR BLOCS AT 1M GRSL.
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TOP OF THE MANHOLE. ALL MANHOLES SHALL BE CONNECTED TO 150MM BELOW FINISH GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.
 - APPROVED HARDFILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICED AREAS. ALL MANHOLES SHALL HAVE STAINLESS GRATES INSTALLED.
 - ALL LINES SHALL BE INSTALLED TO PVC CLASS S116 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

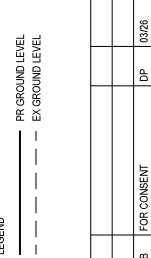
LEGEND

—— PR GROUND LEVEL

- - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

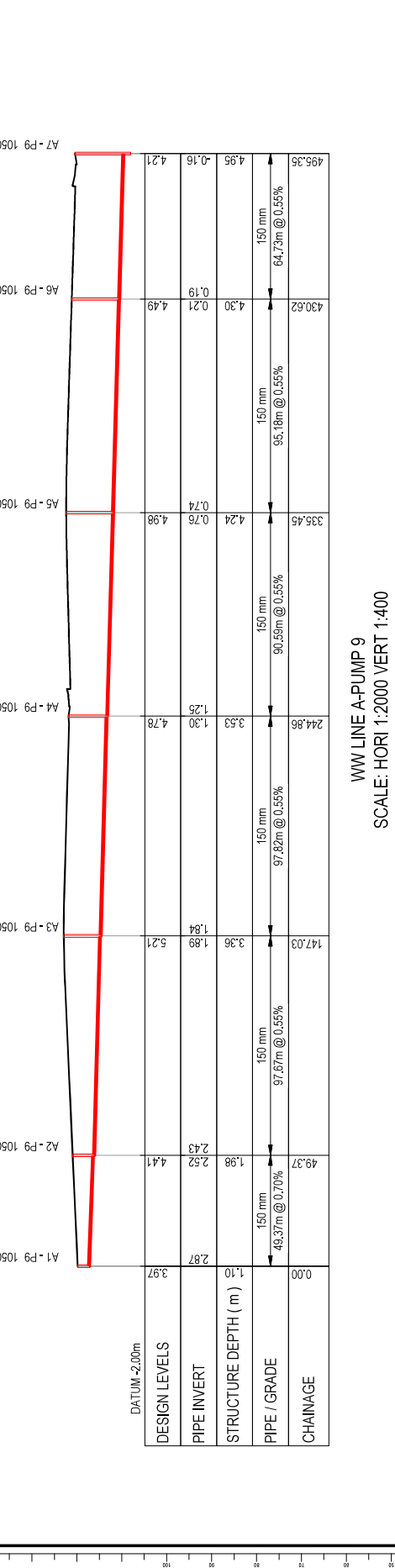
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



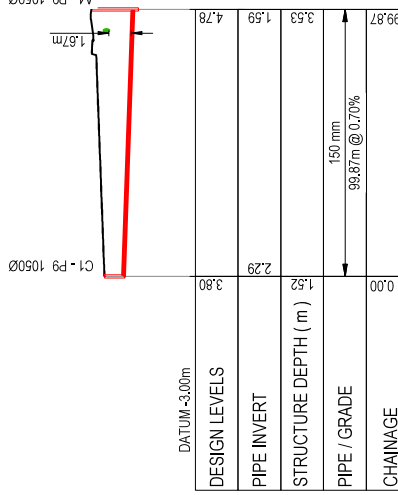
Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title	PROPOSED WASTEWATER LONG SECTION
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP01652010.DWG
Drawing no.	CS20-35

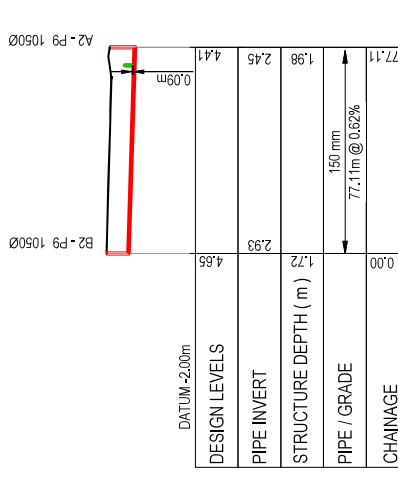
- ORIGINAL SIZE: A3
- 100m
- 90
- 80
- 70
- 60
- 50
- 40
- 30
- 20
- 10
- 0



WW LINE A-PUMP 9
SCALE: HORI 1:2000 VERT 1:400



WW LINE C-PUMP 9
SCALE: HORI 1:2000 VERT 1:400

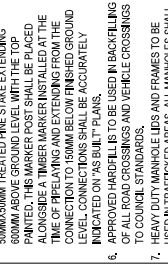


WW LINE B-PUMP 9
SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

Rev	B
-----	---

- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF NZGD 2016.
 - REDUCED LEVELS ARE IN TERMS OF NZGD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING TO 15% GRANULAR BEDDING TO 20% WEAK CONCRETE BEDDING (MMPA PLUS ANTI SCOUR BLOCKS AT 8M CRS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 60MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED AT THE POINT OF CONNECTION TO THE PIPE. THE TYPE OF BEDDING AND BEDDING FROM THE CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDPILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED. ALL MANHOLE LIDS AND FRAMES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS SM18 UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø A 150MM Ø LUNGEN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	Date	05/2025
Design	DP	11/25	
Drawn	DP	11/25	
Checked	CS	11/25	

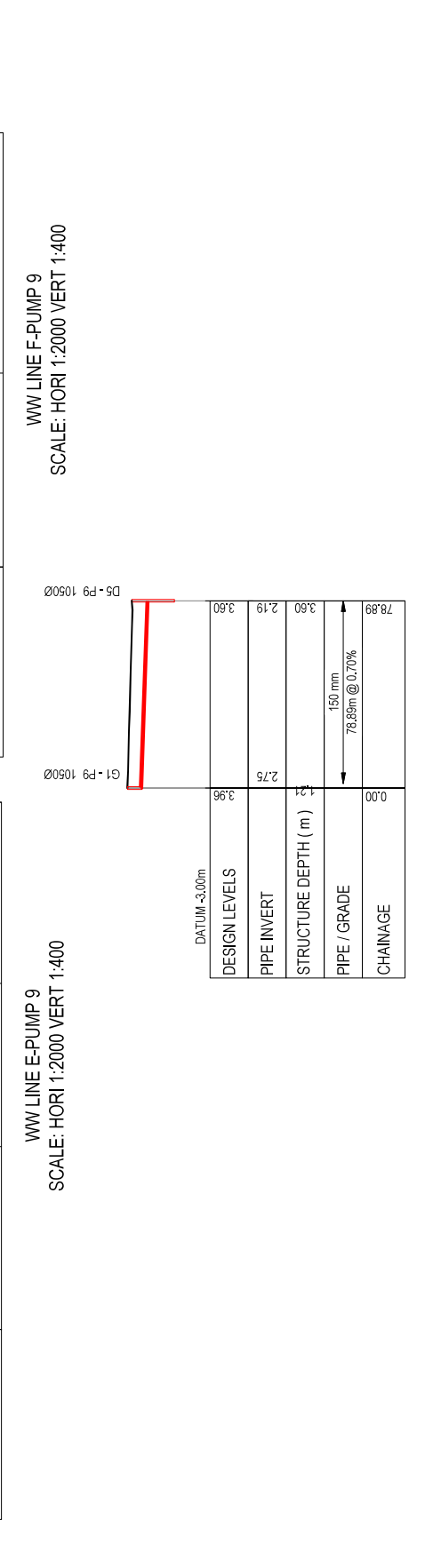
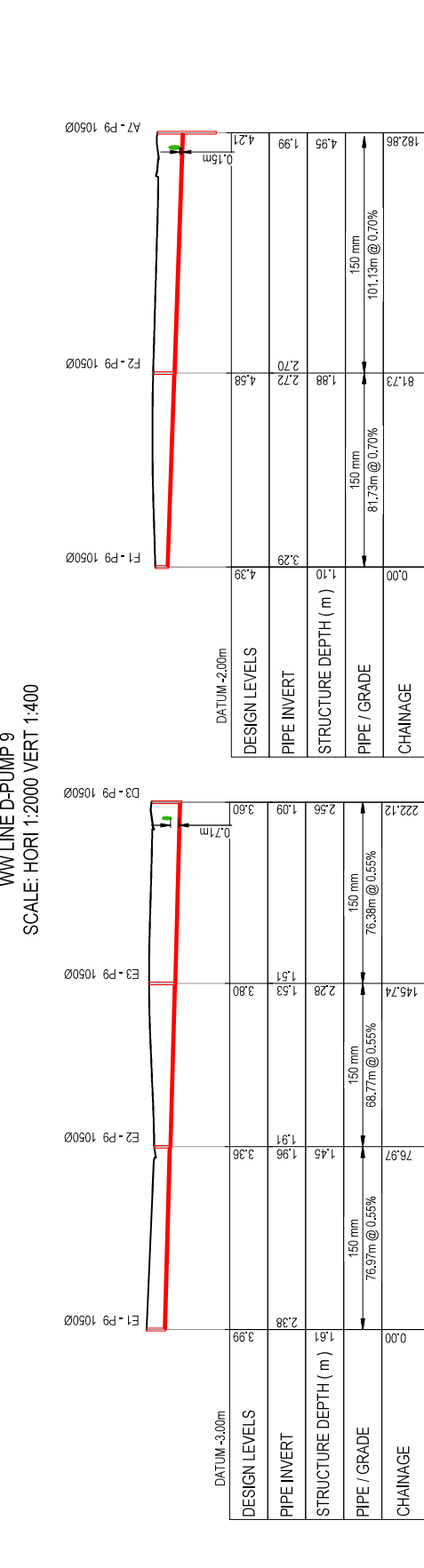
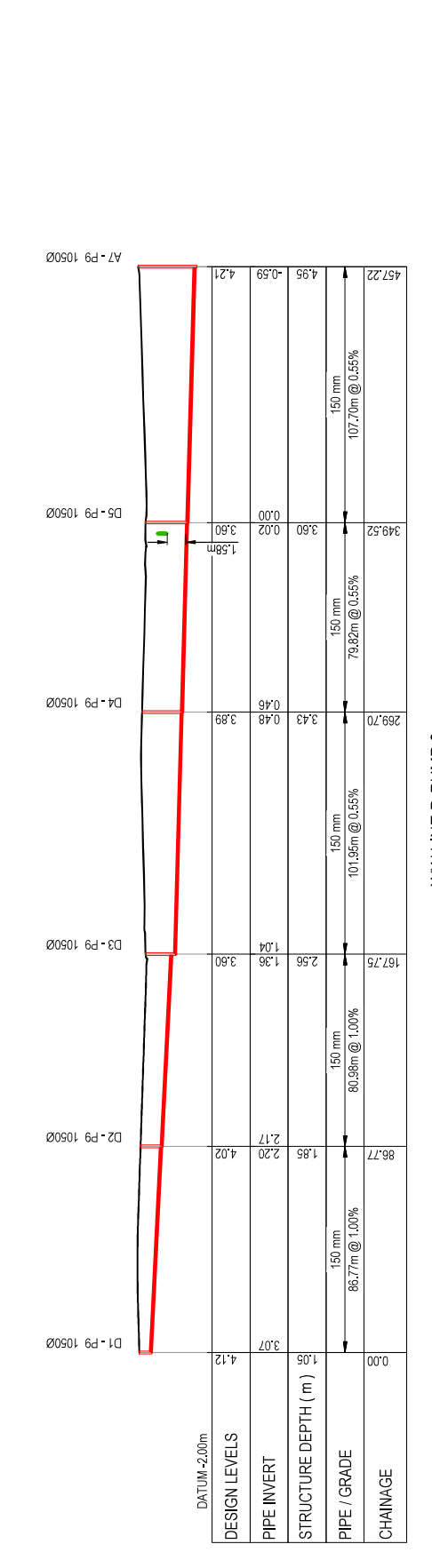
Maven Bay of Plenty
 118 Cameron Street, Tauranga
 www.maven.co.nz
 07 778 9200

Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Cad file	BPP090cs2025.dwg
Drawing no.	CS200-36

Rev	B
-----	---



FOR CONSENT

WW LINE G-PUMP 9
 SCALE: HORI 1:2000 VERT 1:400

Station	Design Invert (m)	Structure Depth (m)	Chainage
G1-P9 105000	2.75	1.21	0.00
G2-P9 105000	3.96	2.19	2.75
G3-P9 105000	3.60	2.19	3.60

Design details for 150mm pipe:
 - Structure Depth: 76.89m @ 0.70%

- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDINGS 0 - 10% GRANULAR BEDDING 10 - 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (MIP) PLUS RHT SCOUR BLOCKS AT 8M CSRS.
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE SIDE OF THE ROAD. THE MARKER SHALL BE CONNECTED TO 150MMx150MM UNFINISHED GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDFILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
 - UNLESS SHOWN OTHERWISE.
 - 150MM Ø PRESS THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNDSIN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

PR GROUND LEVEL
 --- EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

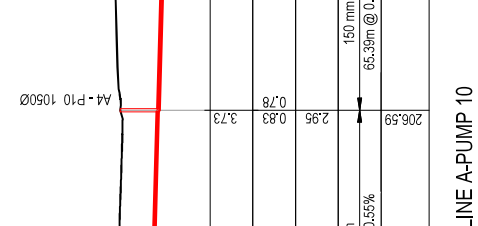
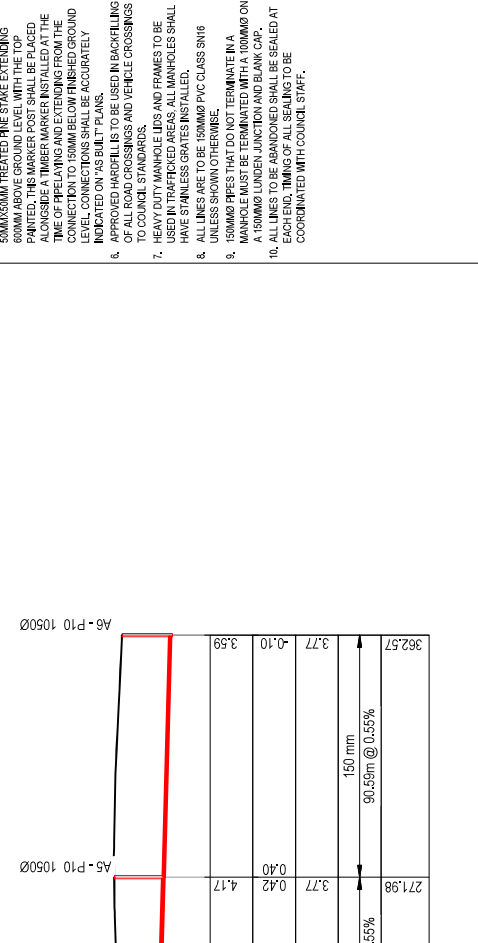
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title	PROPOSED WASTEWATER LONG SECTION
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP019CS2010DWG
Drawing no.	CS20-37

Rev	Rev
B	B



FOR CONSENT

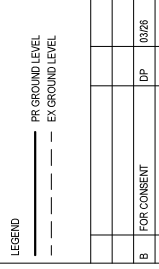
DATE: 03/26 FILE PATH: \\MVEN\WORKS\CONSULT\1162\PROJECTS\BPP019CS2010DWG\BELL ROAD\DRAWING\CS20\BPP019CS2010DWG ORIGINAL SIZE: A3 ORIGINAL SIZE: A3

- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING - 10% GRANULAR BEDDING: 10 - 20% WEAR CONCRETE BEDDING: GREATER THAN 20% WEAR CONCRETE BEDDING (IMPA PLUS ANTI SCOUR BLOCKS AT MANHOLES).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF PIPELAYING AND EXTENDING FROM THE EXISTING TO THE NEW CONNECTION. ALL PROPOSED AND EXISTING CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDFILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS S165 MANHOLE PIPES THAT COMPLY WITH THE REQUIREMENTS OF NZS 4600.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND
 ——— PR GROUND LEVEL
 - - - - - EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

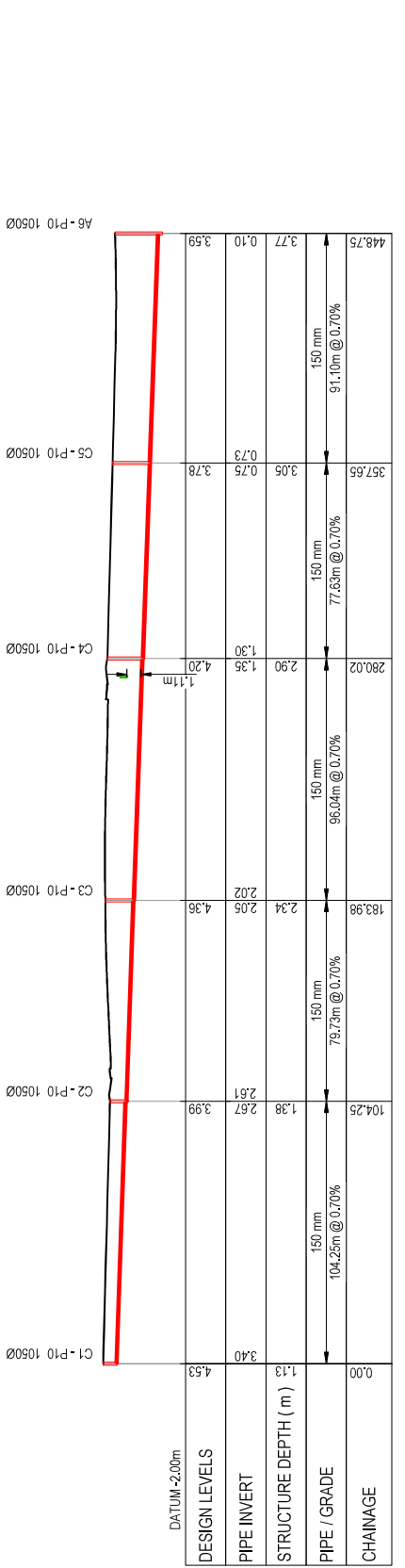
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA
FOR BELL ROAD LIMITED PARTNERSHIP

Title
PROPOSED WASTEWATER LONG SECTION

Project no.	BOP0749
Scale	AS SHOWN
Client	BPP0749-0201DWG
Drawing no.	CS20-38



WW LINE D-PUMP 10
 SCALE: HORI 1:2000 VERT 1:400

Station	Chainage	Grade	Invert	Depth	Structure Depth	Design Level
D1-P10 10500	0.00	1.05	3.36	4.41	1.05	4.41
D2-P10 10500	51.49	1.55	3.08	4.61	1.55	4.06
D3-P10 10500	104.25	1.38	2.67	3.99	2.61	4.06
D4-P10 10500	183.98	2.05	2.34	2.02	2.34	4.20

WW LINE E-PUMP 10
 SCALE: HORI 1:2000 VERT 1:400

Station	Chainage	Grade	Invert	Depth	Structure Depth	Design Level
E1-P10 10500	0.00	1.56	2.45	4.02	1.56	4.02
E2-P10 10500	84.03	1.78	1.86	3.41	1.78	3.41

WW LINE F-PUMP 10
 SCALE: HORI 1:2000 VERT 1:400

Station	Chainage	Grade	Invert	Depth	Structure Depth	Design Level
F1-P10 10500	0.00	1.56	2.45	4.02	1.56	4.02
F2-P10 10500	84.03	1.78	1.86	3.41	1.78	3.41

FOR CONSENT

- NOTES
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - COORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING - 10% GRANULAR BEDDING 10 - 20% WEAR CONCRETE BEDDING GREATER THAN 20% BEDDING (IMPACT PLUS ANTICORROSION BLOCKS AT 6M CS).
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE END OF PIPING AND EXTENDING FROM THE GROUND TO THE TOP OF THE PIPE. ALL CONNECTION LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDFILLS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
 - UNLESS SHOWN OTHERWISE.
 - 150MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNDSIN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

— EX GROUND LEVEL
 - - - - - EX GROUND LEVEL

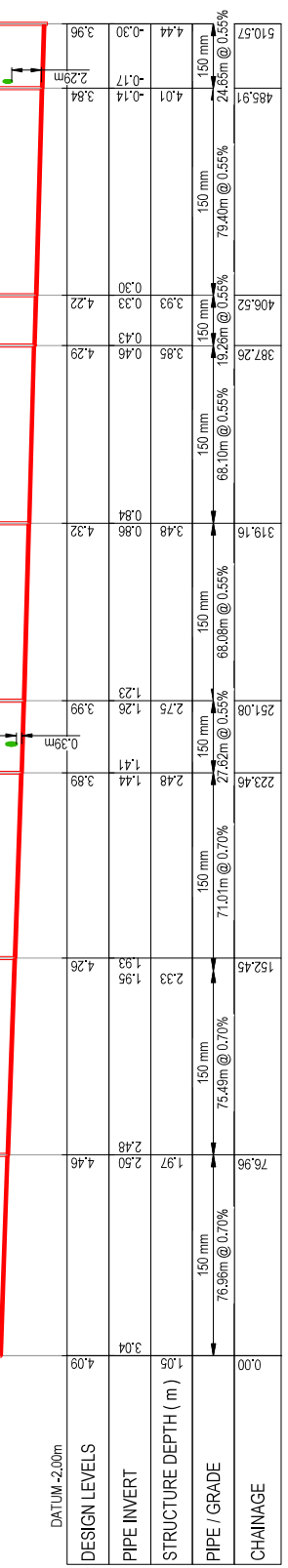
Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25

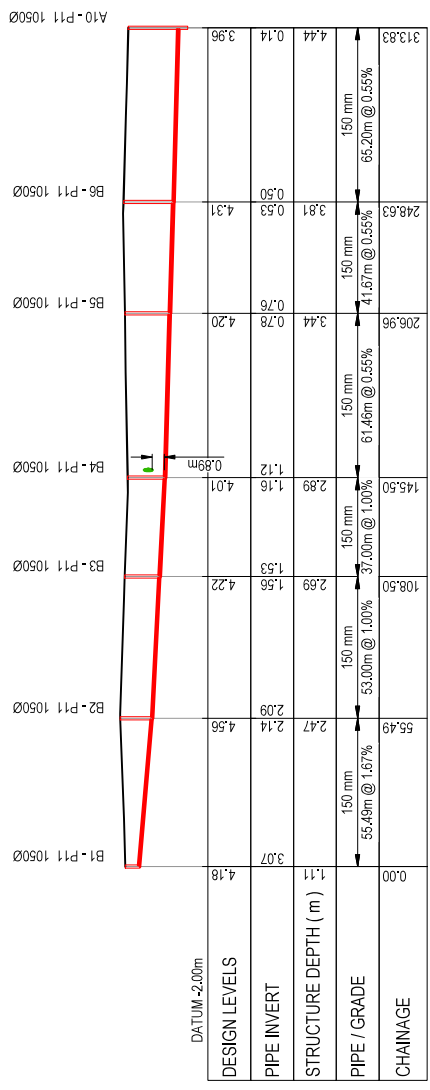


Project
WAIRAKEI SOUTH FTA090 DEVELOPMENT
BELL ROAD, PAPAMOA FOR BELL ROAD LIMITED PARTNERSHIP

Title	PROPOSED WASTEWATER LONG SECTION
Project no.	BOP0749
Scale	AS SHOWN
Client	BPP0749CS02.DWG
Drawing no.	CS20-39
Rev	B



WW LINE A-PUMP 11
 SCALE: HORI 1:2000 VERT 1:400



WW LINE B-PUMP 11
 SCALE: HORI 1:2000 VERT 1:400

FOR CONSENT

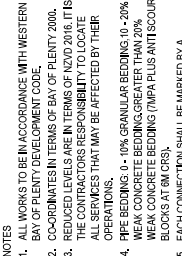
- NOTES**
- ALL WORKS TO BE IN ACCORDANCE WITH WESTERN BAY OF PLENTY DEVELOPMENT CODE.
 - CO-ORDINATES IN TERMS OF BAY OF PLENTY 2000.
 - REDUCED LEVELS ARE IN TERMS OF NZVD 2016. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 - PIPE BEDDING: 10% GRANULAR BEDDING: 10 - 20% WEAK CONCRETE BEDDING: GREATER THAN 20% WEAK CONCRETE BEDDING: IMPA PLUS ANTI SCOUR BLOCKS AT ALL CSJ'S.
 - EACH CONNECTION SHALL BE MARKED BY A 50MMx50MM TREATED PINE STAKE EXTENDING 600MM ABOVE GROUND LEVEL WITH THE TOP PAINTED. THIS MARKER POST SHALL BE PLACED ALONGSIDE A TIMBER MARKER INSTALLED AT THE TIME OF PIPE LAYING AND EXTENDING FROM THE TOP OF THE PIPE TO THE GROUND SURFACE. GROUND LEVEL CONNECTIONS SHALL BE ACCURATELY INDICATED ON 'AS BUILT' PLANS.
 - APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
 - HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS. ALL MANHOLES SHALL HAVE STAINLESS STEEL GRATES INSTALLED.
 - ALL LINES ARE TO BE 150MM Ø PVC CLASS SM16.
 - 15MM Ø PIPES THAT DO NOT TERMINATE IN A MANHOLE MUST BE TERMINATED WITH A 100MM Ø ON A 150MM Ø LUNDSUN JUNCTION AND BLANK CAP.
 - ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND

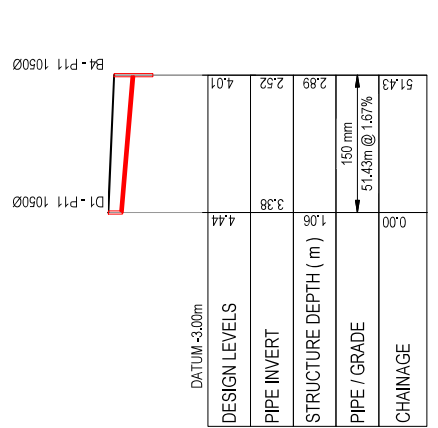
— PR GROUND LEVEL
 --- EX GROUND LEVEL

Rev	Description	By	Date
B	FOR CONSENT	DP	03/26
A	FOR REVIEW	DP	11/25

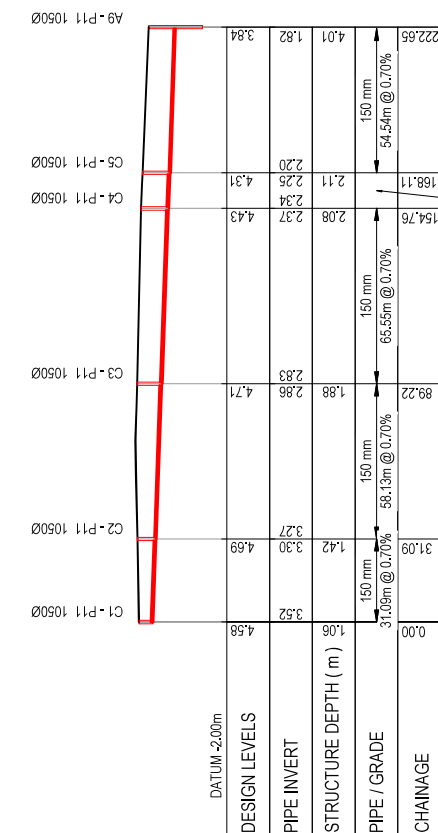
Survey	MAVEN	05/2025
Design	DP	11/25
Drawn	DP	11/25
Checked	CS	11/25



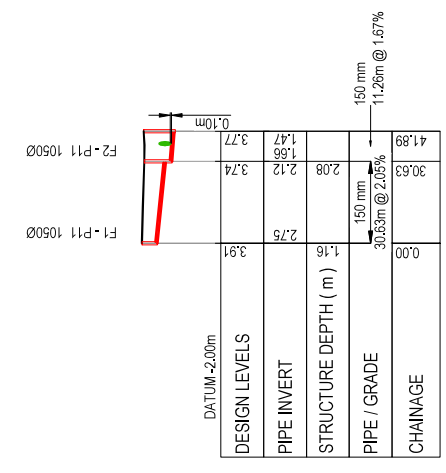
Title	PROPOSED WASTEWATER LONG SECTION
Project no.	BOP0749
Scale	AS SHOWN
Cad file	B:\P0749\CS20.DWG
Drawing no.	CS20-40
Rev	B



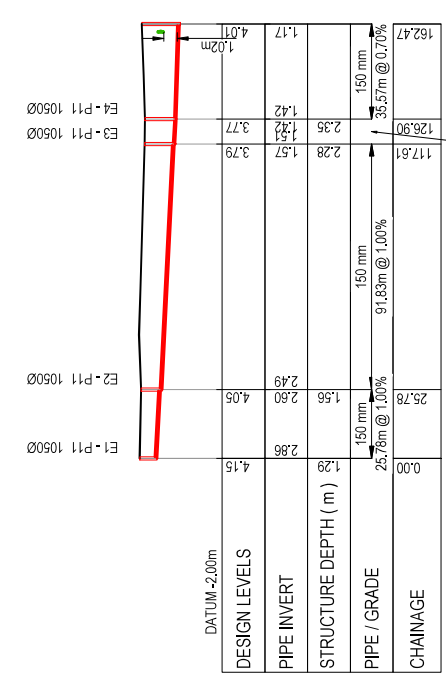
WW LINE D-PUMP 11
 SCALE: HORI 1:2000 VERT 1:400



WW LINE C-PUMP 11
 SCALE: HORI 1:2000 VERT 1:400



WW LINE F-PUMP 11
 SCALE: HORI 1:2000 VERT 1:400



WW LINE E-PUMP 11
 SCALE: HORI 1:2000 VERT 1:400