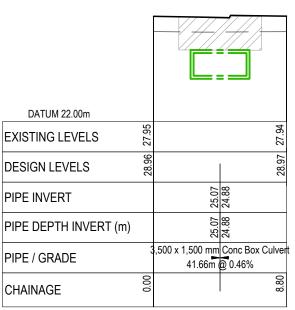


ROAD 1 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 1 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUP BLOCKS AT 6M CRS).
- 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  ${\sf USED\ IN\ TRAFFICKED\ AREAS}.$
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



— EX GROUND SURFACE - PR FINISHED GROUND SURFACE SW PIPE CROSSING SW CULVERT CROSSING HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	RESOURSE CONSENT		OQ	02/2025
Rev	Desc	escription		Ву	Date
'		Ву	Date		
Surve	у	SURVEYWORX	02/20	21	
Design		YW	11/2024		
Drawn		OQ	11/2024		
Checked		JP/LC	02/2025		



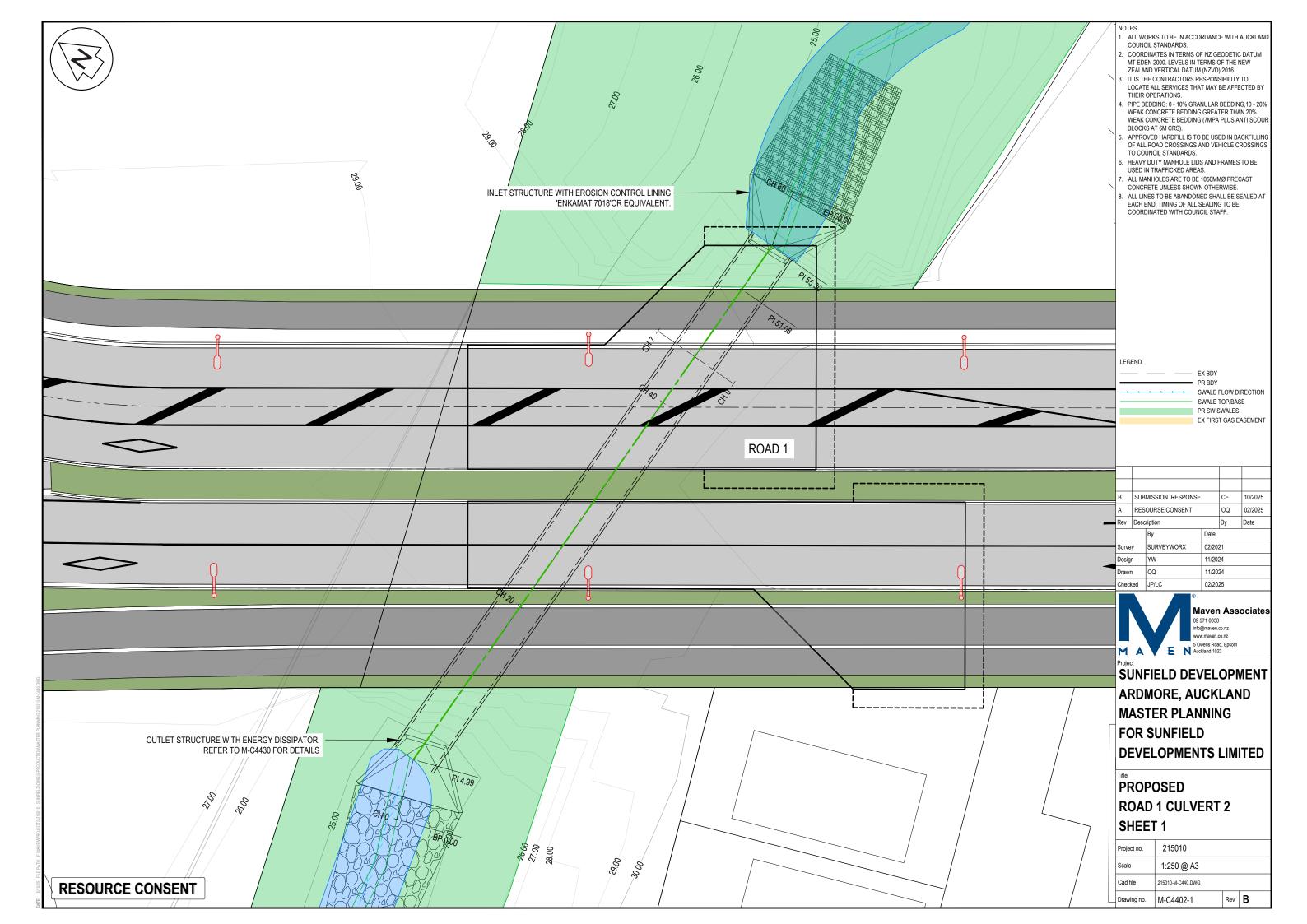
## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING**

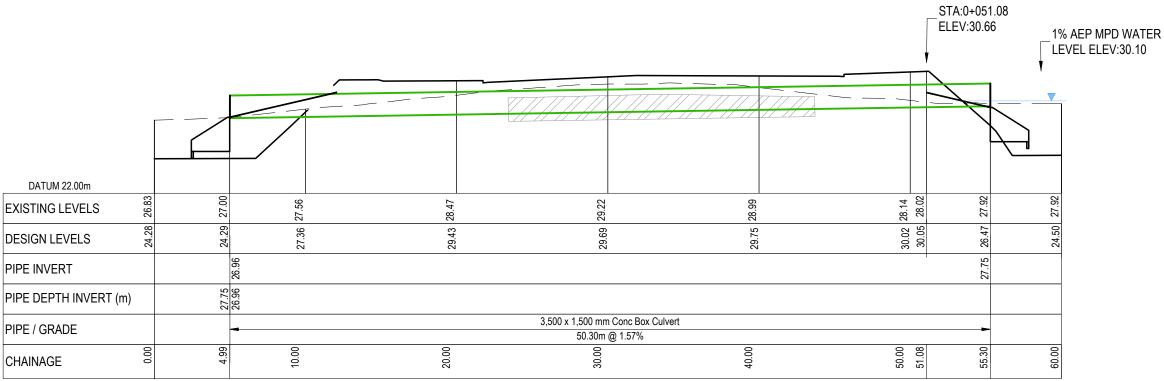
**DEVELOPMENTS LIMITED** 

**PROPOSED ROAD 1 CULVERT 1** SHEET 2

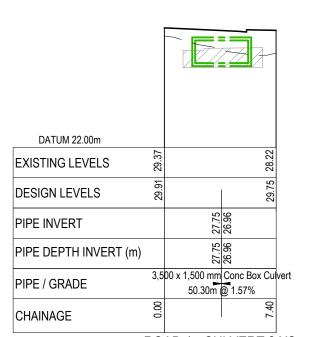
FOR SUNFIELD

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4401-2	Rev	В





ROAD 1 - CULVERT 2 SCALE: HORI 1:250 VERT 1:250



ROAD 1 - CULVERT 2 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).

  APPROVED HARDFILL IS TO BE USED IN BACKFILLIN
- OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

\_\_ \_\_ \_ \_ EX GROUND SURFACE PR FINISHED GROUND SURFACE SW PIPE CROSSING SW CULVERT CROSSING HARDFILL BACKFILL

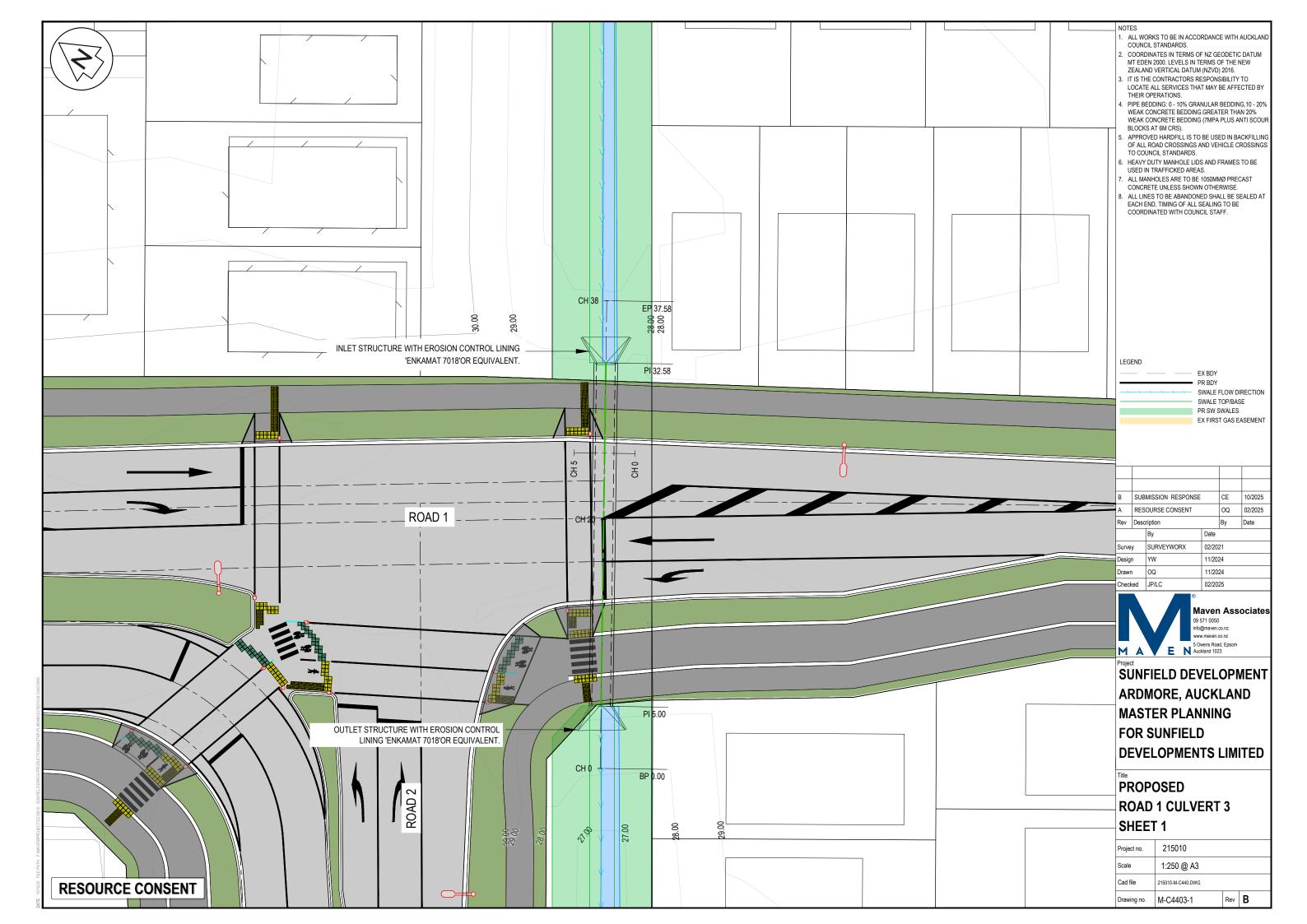
В	SUB	MISSION RESPONSE		CE	10/2025
Α	RESOURSE CONSENT			OQ	02/2025
Rev	Desc	Description		Ву	Date
		Ву	Date	Date	
Surve	y	SURVEYWORX	02/2021		
Design		YW	11/2024		
Drawn		OQ	11/2024		
Check	ed	JP/LC	02/2025		

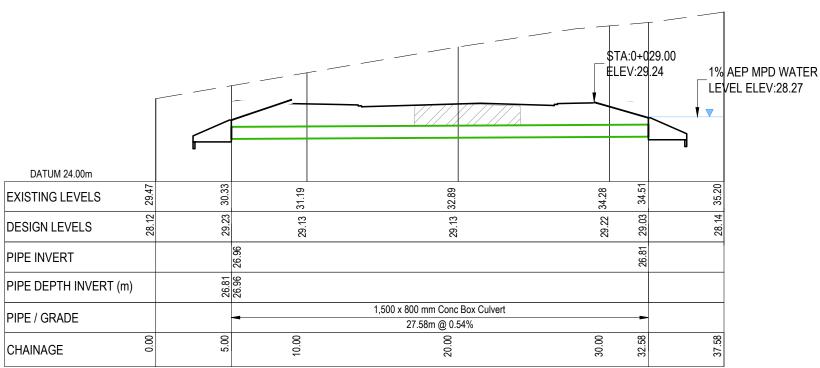


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED** 

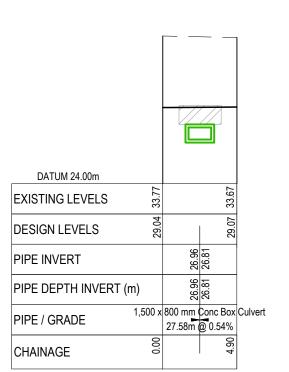
**PROPOSED ROAD 1 CULVERT 2** SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4402-2	Rev	В





ROAD 1 - CULVERT 3 SCALE: HORI 1:250 VERT 1:250



ROAD 1 - CULVERT 3 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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 (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).

  5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

#### LEGEND:

PR FINISHED GROUND SURFACE
PR FINISHED GROUND SURFACE
SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RESOURSE CONSENT			OQ	02/2025
Rev	Description			Ву	Date
		Ву	Date		
Surve	y	SURVEYWORX	02/202	21	
Design		YW	11/2024		
Drawn		OQ	11/2024		
Check	ed	JP/LC	02/2025		



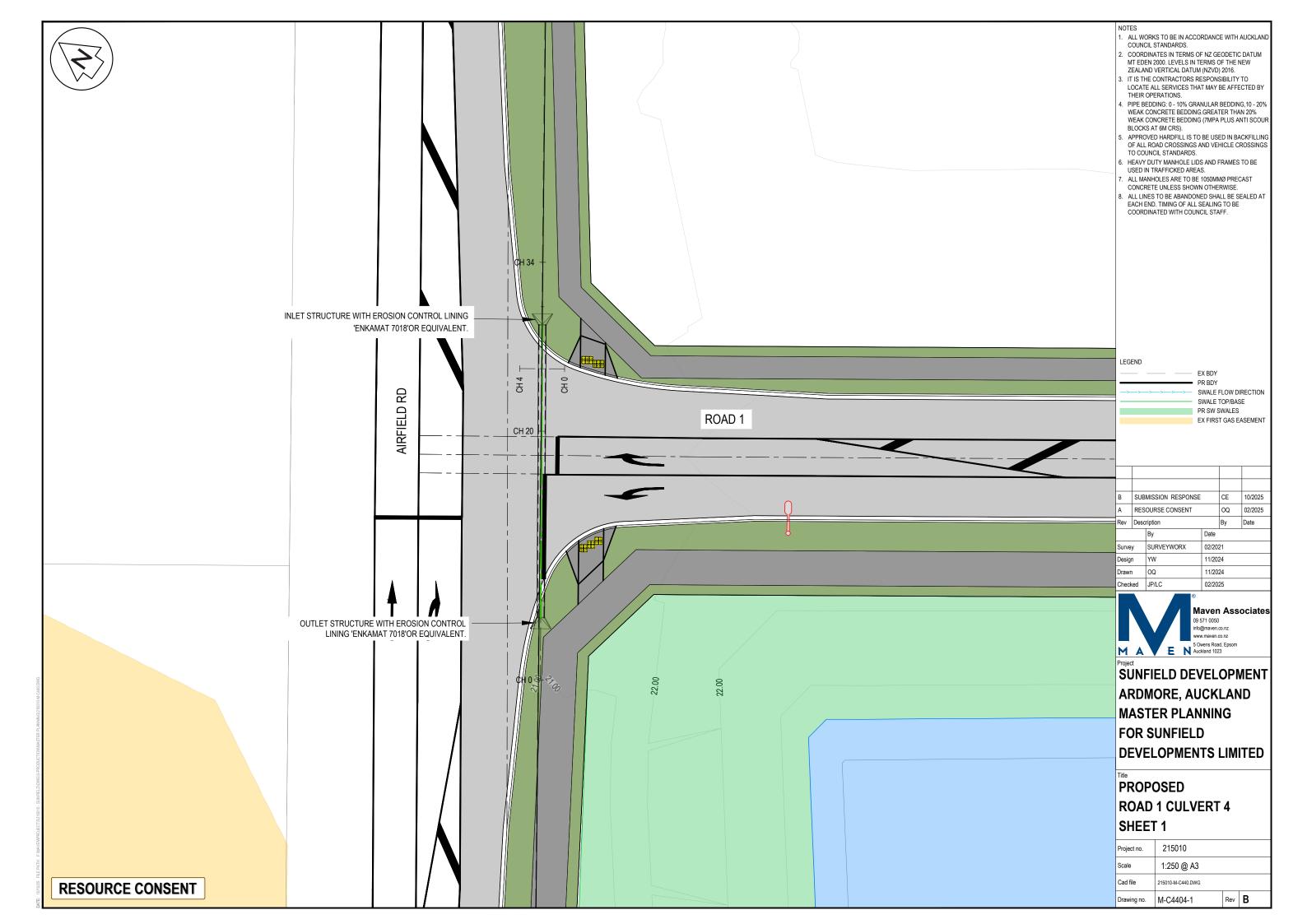
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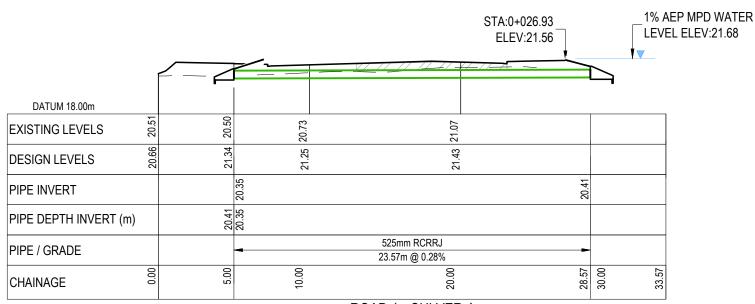
SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTER PLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

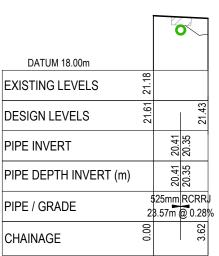
PROPOSED
ROAD 1 CULVERT 3
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4403-2	Rev	В





ROAD 1 - CULVER 4 SCALE: HORI 1:250 VERT 1:250



ROAD 1 - CULVERT 4 XS SCALE: HORI 1:250 VERT 1:250

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- 3. 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%
   WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF
  BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING
   OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
   TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

PR FINISHED GROUND SURFACE
PR FINISHED GROUND SURFACE
SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	RESOURSE CONSENT			02/2025
Rev	Desc	Description		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/202	02/2021	
Desig	ı	YW	11/2024		
Drawn		OQ	11/2024		
Check	ed	JP/LC	02/2025		

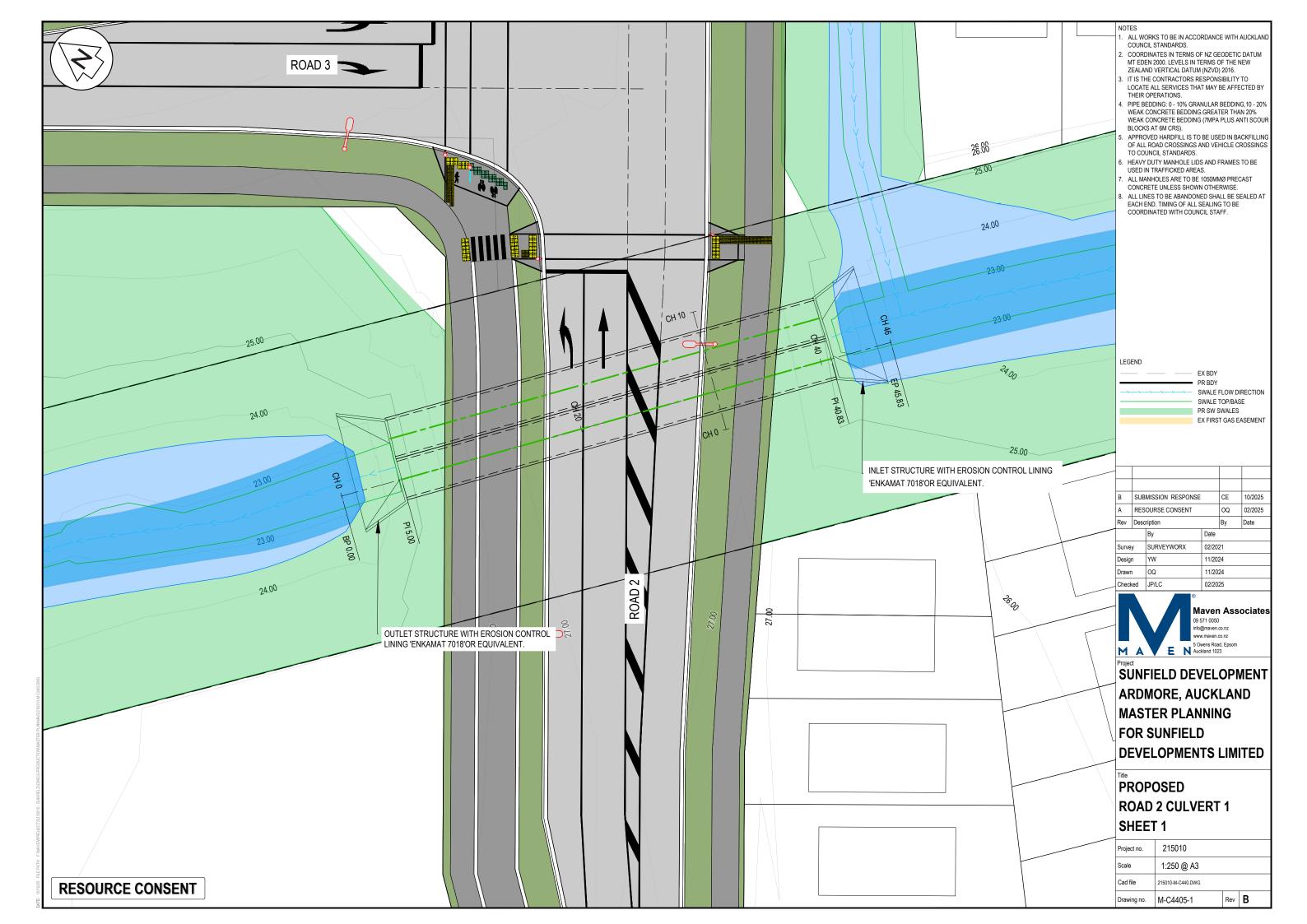


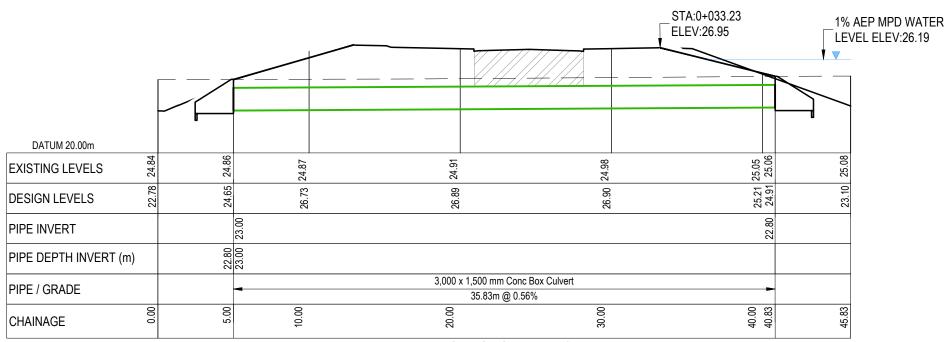
## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

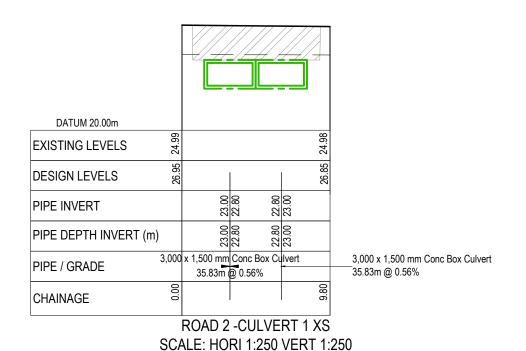
PROPOSED
ROAD 1 CULVERT 4
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4404-2	Rev	В





ROAD 2 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



RESOURCE CONSENT

## NOTES 1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLANI COUNCIL STANDARDS. 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM

 COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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%
- PIPE BEDDING: 0 10% GRANULAR BEDDING; 10 20%
  WEAK CONCRETE BEDDING.GREATER THAN 20%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOU
  BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING
   OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
   TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

— — — EX GROUND SURFACE

— PR FINISHED GROUND SURFACE

SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

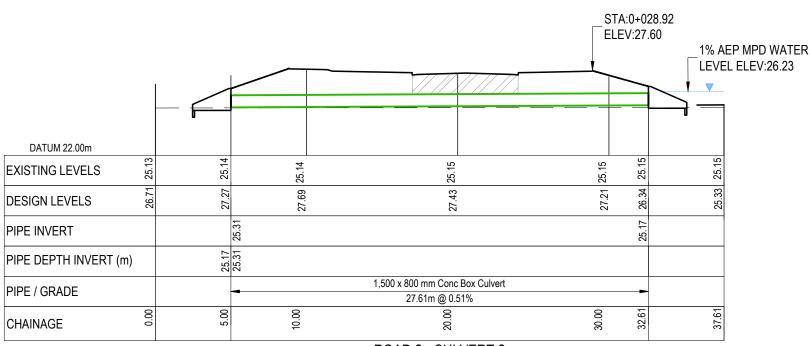
В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	RESOURSE CONSENT			02/2025
Rev	Desc	escription		Ву	Date
		Ву	Date	te	
Surve	y	SURVEYWORX	02/20:	02/2021	
Design YW 11/2024					
Drawn		OQ	11/2024		
Checked		JP/LC	02/2025		



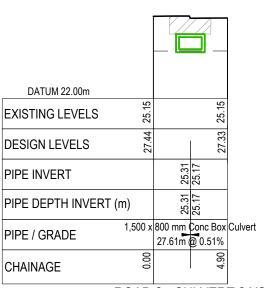
# SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED
ROAD 2 CULVERT 1
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4405-2	Rev	В



ROAD 2 - CULVERT 2 SCALE: HORI 1:250 VERT 1:250

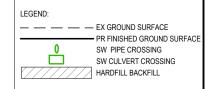


ROAD 2 - CULVERT 2 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF
  BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	RESOURSE CONSENT			02/2025
Rev	Desc	escription			Date
,		Ву	Date	,	
Surve	у	SURVEYWORX	02/20	2/2021	
Design		YW	11/2024		
Drawn		OQ	11/2024		
Checked		JP/LC	02/20	25	

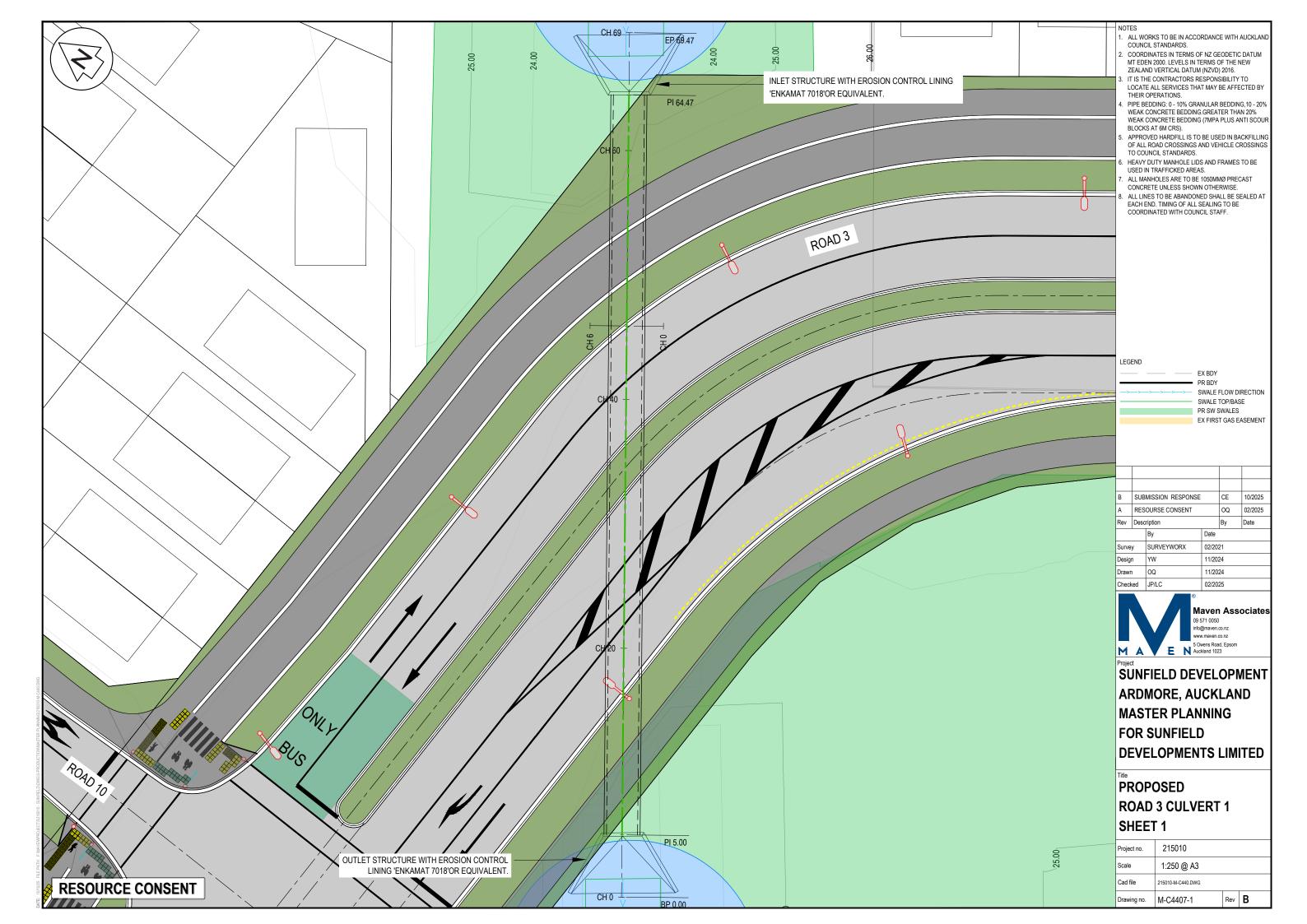


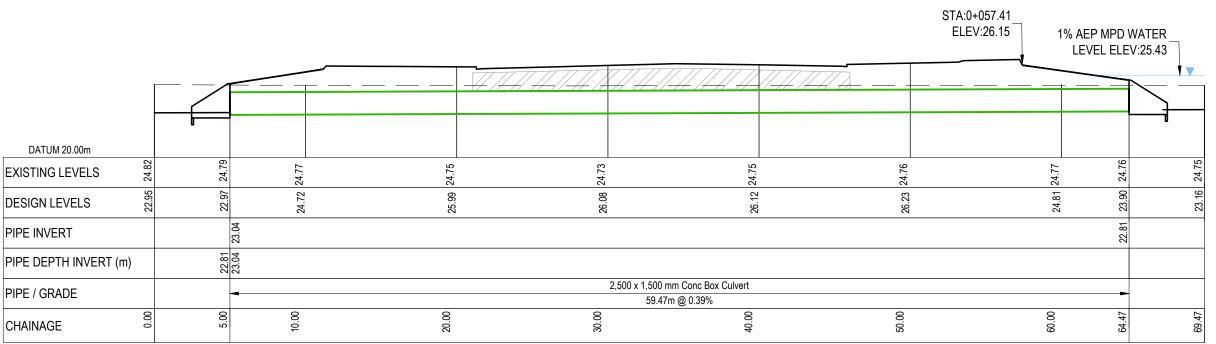
## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED ROAD 2 CULVERT 2

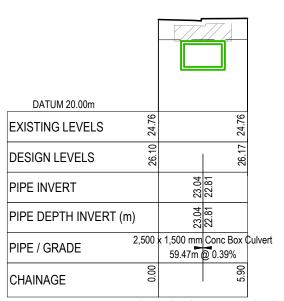
#### SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4406-2	Rev	B





ROAD 3 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 3 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- ZEALAND VERTICAL DATUM (NZVD) 2016.

  3. 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).
- 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.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



PR FINISHED GROUND SURFACE
SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	Description		Ву	Date
,		Ву	Date		
Surve	у	SURVEYWORX	02/20	2021	
Design		YW	11/2024		
Drawn		OQ	11/2024		
Checked		JP/LC	02/20	25	



## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

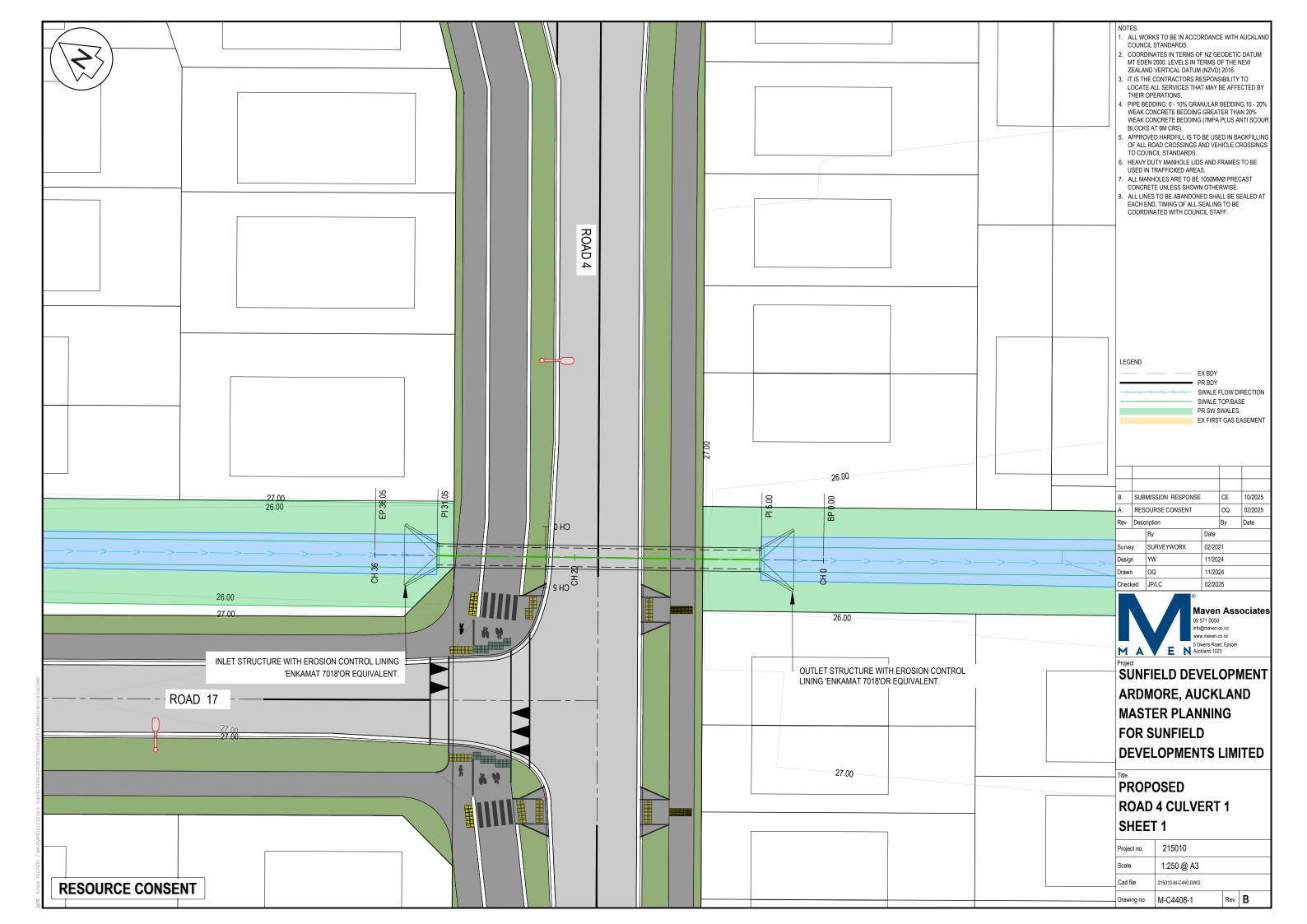
PROPOSED
ROAD 3 CULVERT 1
SHEET 2

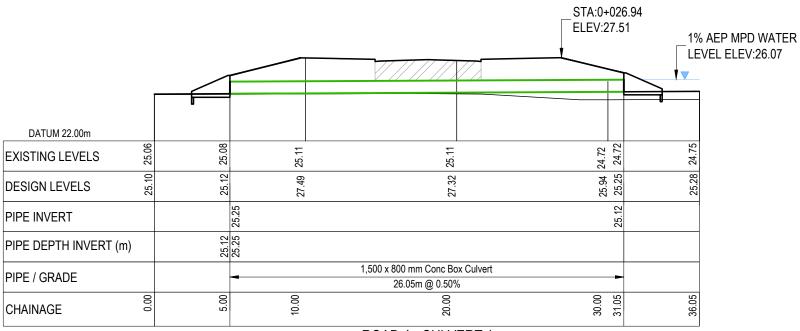
Project no. 215010

Scale 1:250 @ A3

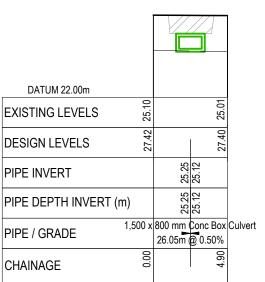
Cad file 215010-M-C440.DWG

Drawing no. M-C4407-2 Rev B





ROAD 4 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 4 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- 3. 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%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF
  BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING
   OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
   TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



PR FINISHED GROUND SURFACE
PR FINISHED GROUND SURFACE
SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RESOURSE CONSENT			OQ	02/2025
Rev	Desc	Description		Ву	Date
		Ву	Date		
Surve	y	SURVEYWORX	02/202	2/2021	
Desig	ı	YW	11/2024		
Drawn		OQ	11/2024		
Check	ed	JP/LC	02/2025		

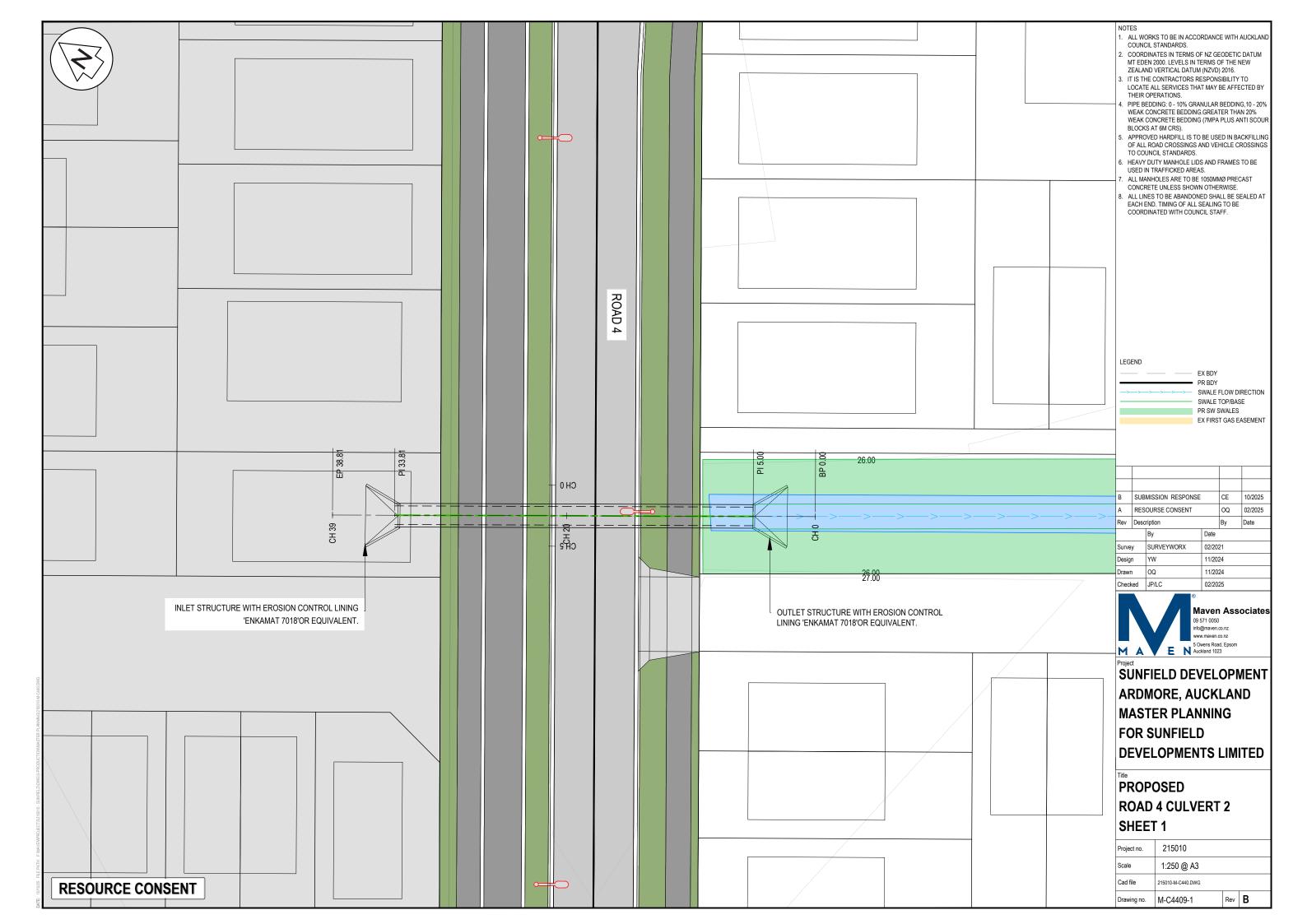


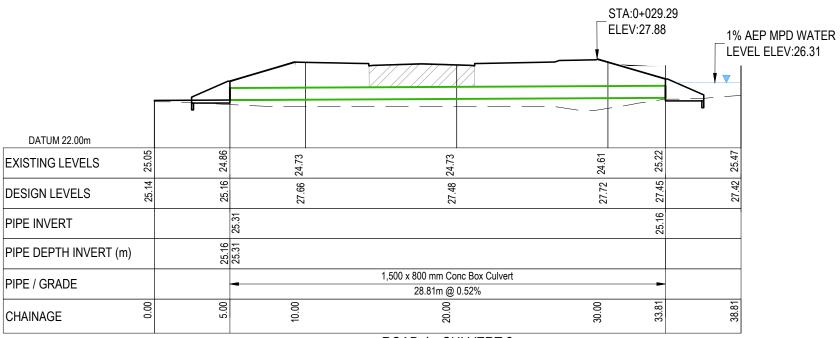
## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

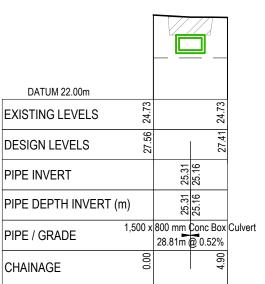
PROPOSED
ROAD 4 CULVERT 1
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4408-2	Rev	В





ROAD 4 - CULVERT 2 SCALE: HORI 1:250 VERT 1:250

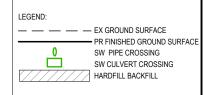


ROAD 4 - CULVERT 2 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING
   OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
   TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



В	SUB	MISSION RESPONSE		CE	10/2025	
Α	RES	OURSE CONSENT		OQ	02/2025	
Rev	Desc	ription		Ву	Date	
		Ву	Date			
Surve	у	SURVEYWORX	02/20	021		
Desig	n	YW	11/20	/2024		
Drawn		OQ	11/2024			
Check	ed	JP/LC	02/20	25		

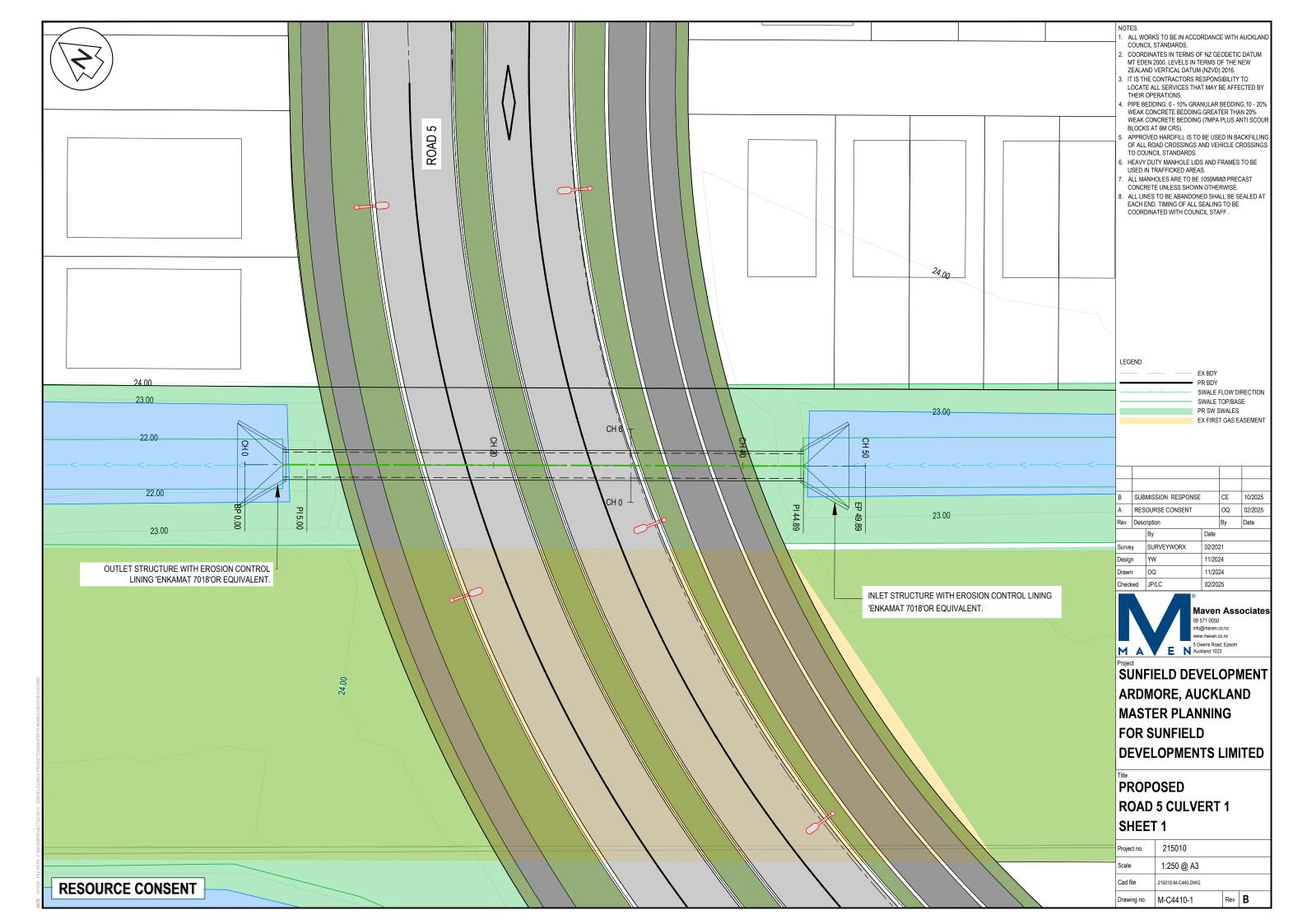


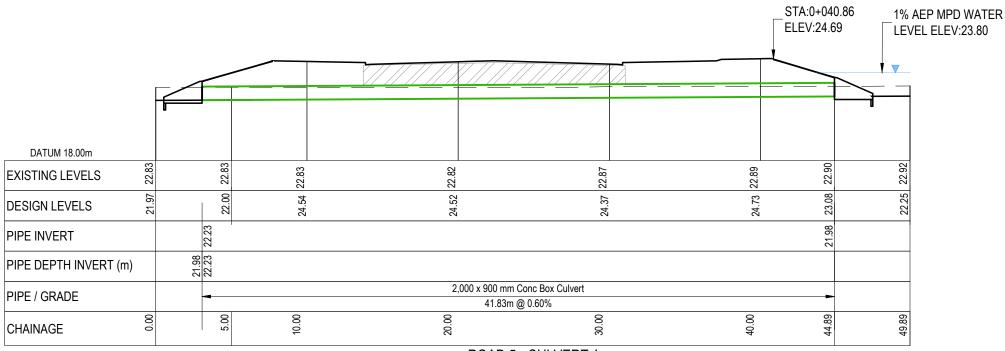
# SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED

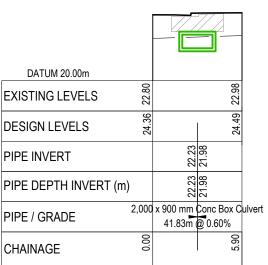
ROAD 4 CULVERT 2 SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4409-2	Rev	В





ROAD 5 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 5 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- 3. 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%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUP BLOCKS AT 6M CRS).
- 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.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



PR FINISHED GROUND SURFACE

PR FINISHED GROUND SURFACE

SW PIPE CROSSING

SW CULVERT CROSSING

HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	RESOURSE CONSENT		OQ	02/2025
Rev	Desc	cription		Ву	Date
,		Ву	Date		
Surve	у	SURVEYWORX	02/2021		
Desig	n	YW	11/2024		
Drawn		OQ	11/2024		
Check	red	JP/LC	02/2025		



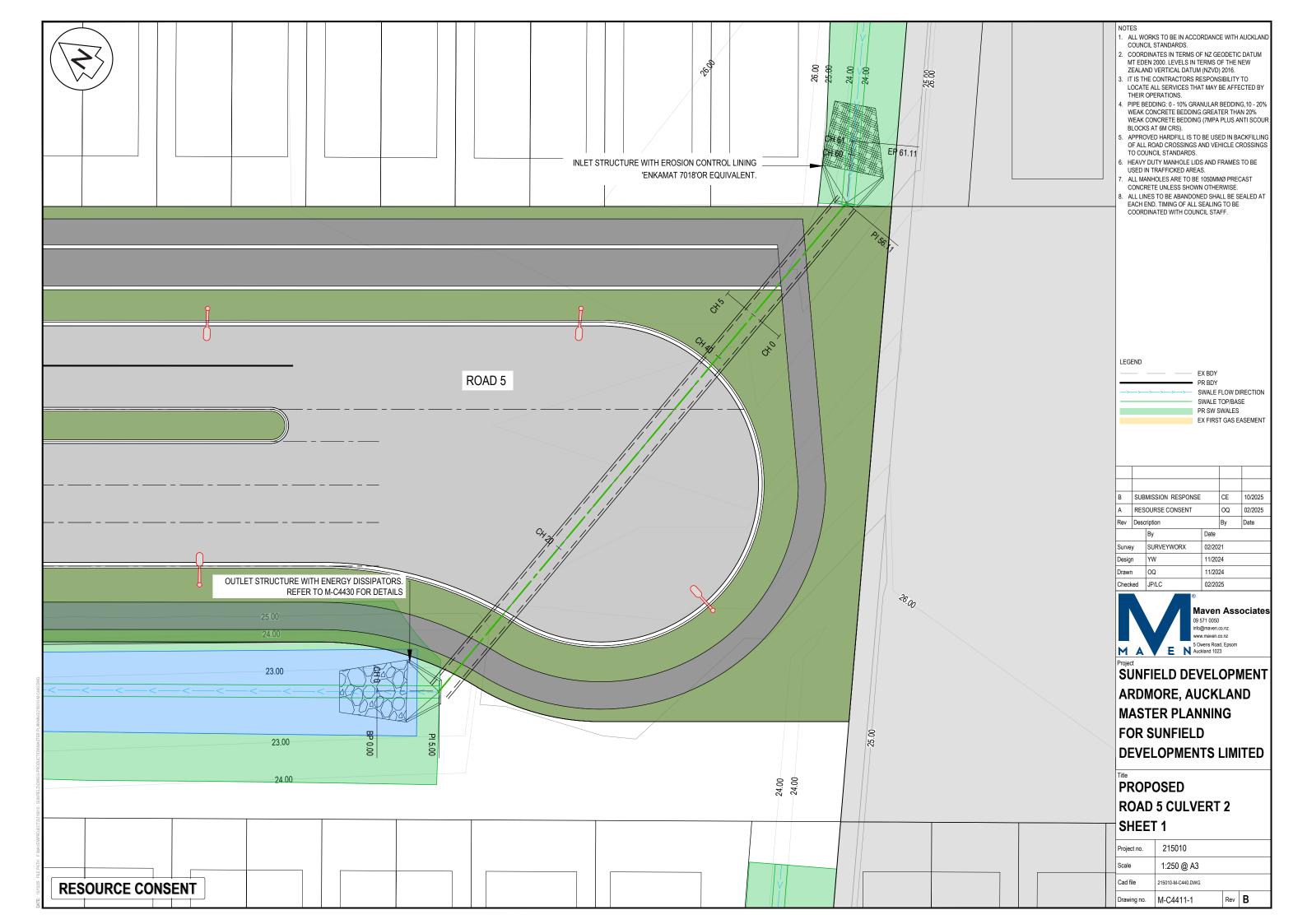
Project

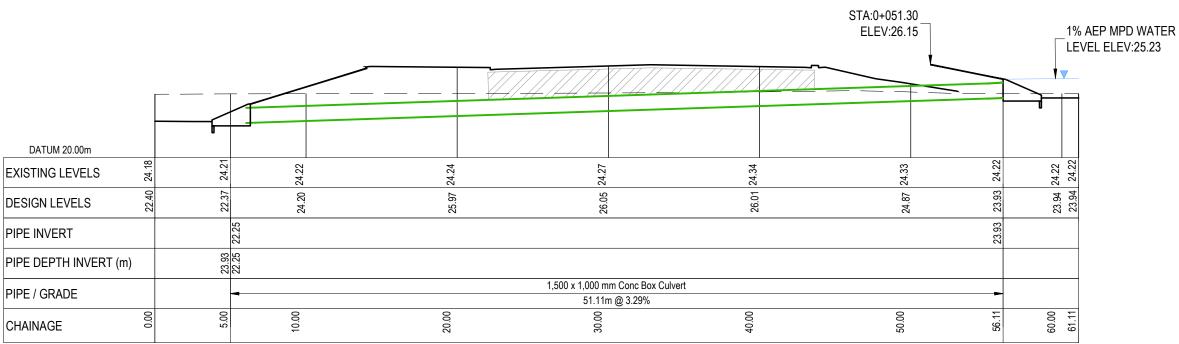
# SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

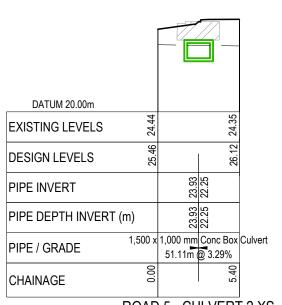
## PROPOSED ROAD 5 CULVERT 1 SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4410-2	Rev	В





ROAD 5 - CULVERT 2 SCALE: HORI 1:250 VERT 1:250



ROAD 5 - CULVERT 2 XS SCALE: HORI 1:250 VERT 1:250

#### **RESOURCE CONSENT**

#### NOTE

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LEGEND:

EX GROUND SURFACE
 PR FINISHED GROUND SURFACE
 W PIPE CROSSING
 SW CULVERT CROSSING
 HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	y	SURVEYWORX	02/20	21	
Desig	1	YW	11/2024		
Drawn	1	OQ	11/20	24	
Check	ed	JP/LC	02/20	25	

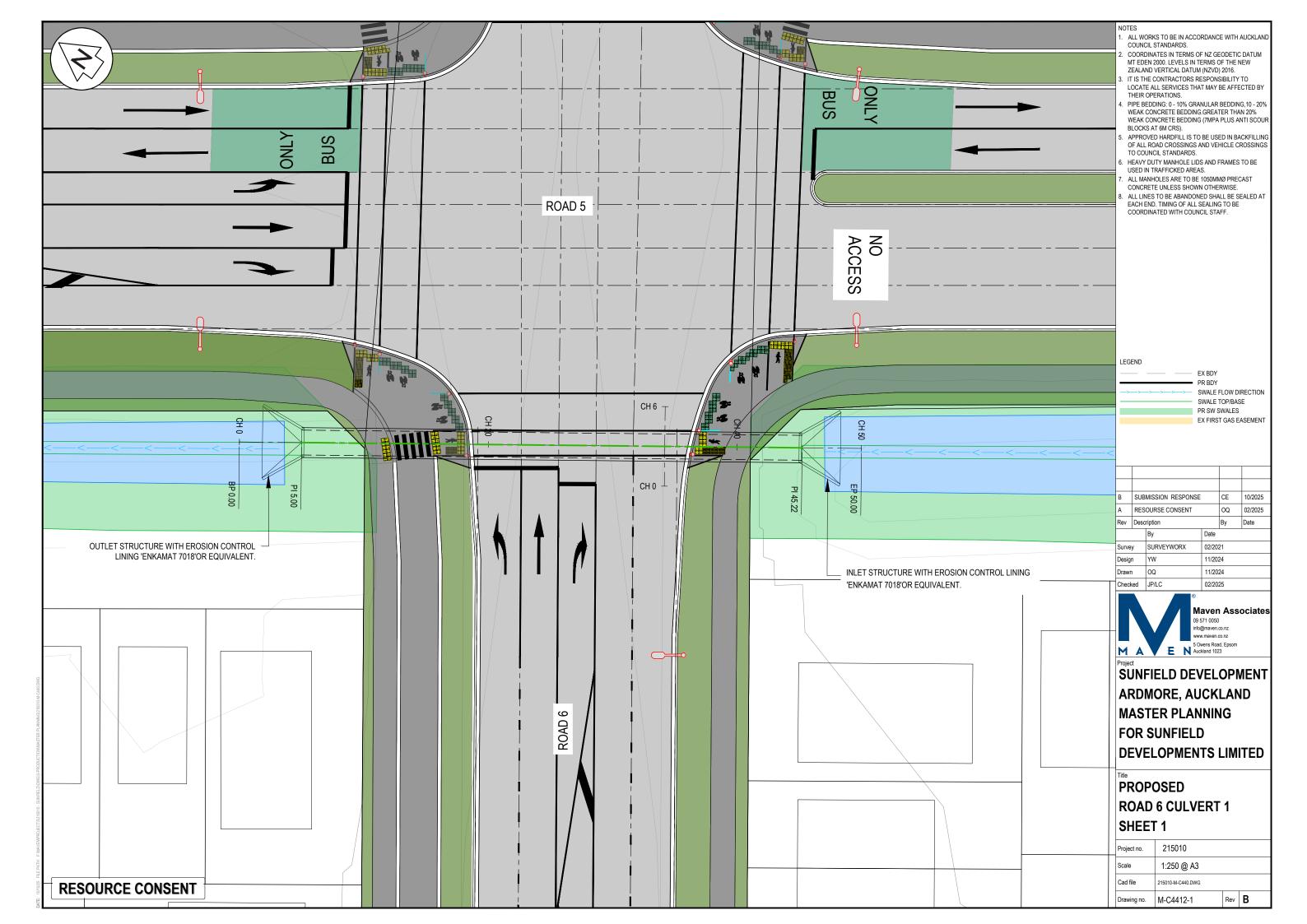


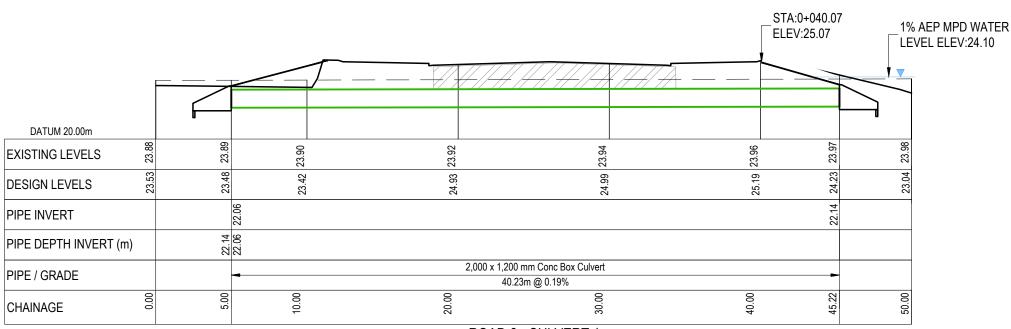
## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

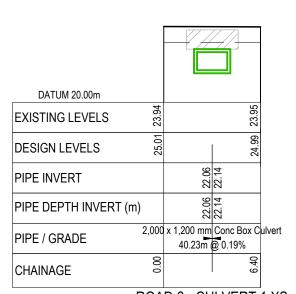
PROPOSED
ROAD 5 CULVERT 2
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4411-2	Rev	В





ROAD 6 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 6 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

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LEGEND:

— EX GROUND SURFACE - PR FINISHED GROUND SURFACE SW PIPE CROSSING SW CULVERT CROSSING HARDFILL BACKFILL

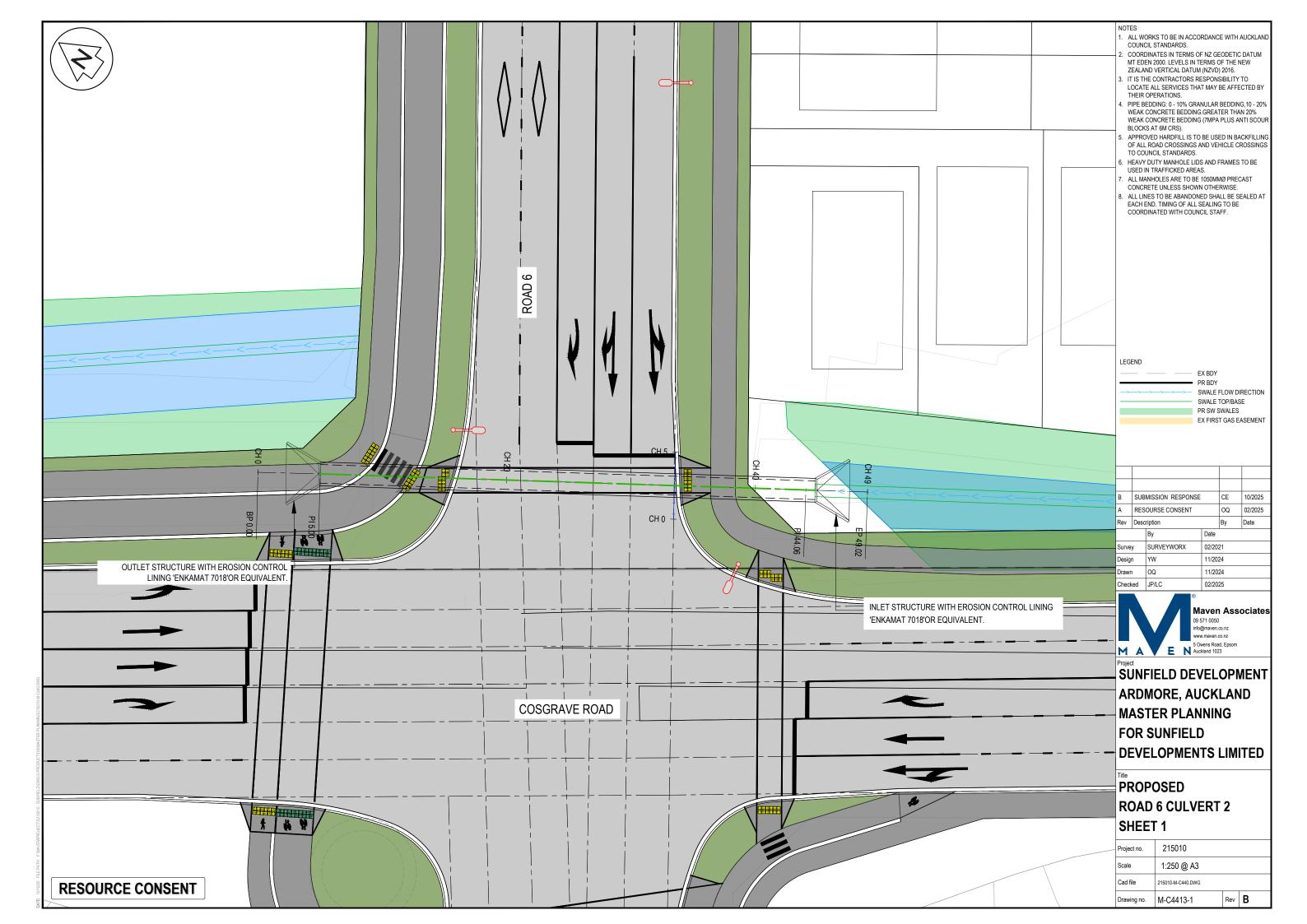
В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	cription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/20:	02/2021	
Desig	n	YW	11/2024		
Drawn		OQ	11/2024		
Check	ced	JP/LC	02/2025		

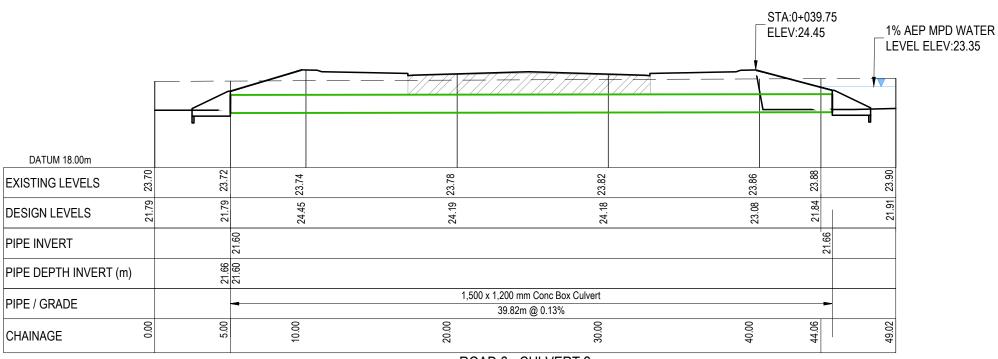


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED** 

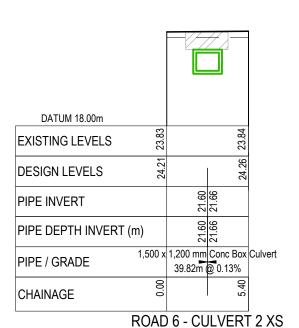
PROPOSED **ROAD 6 CULVERT 1** SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4412-2	Rev	В





ROAD 6 - CULVERT 2 SCALE: HORI 1:250 VERT 1:250

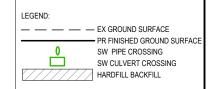


SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

#### ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS. . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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%

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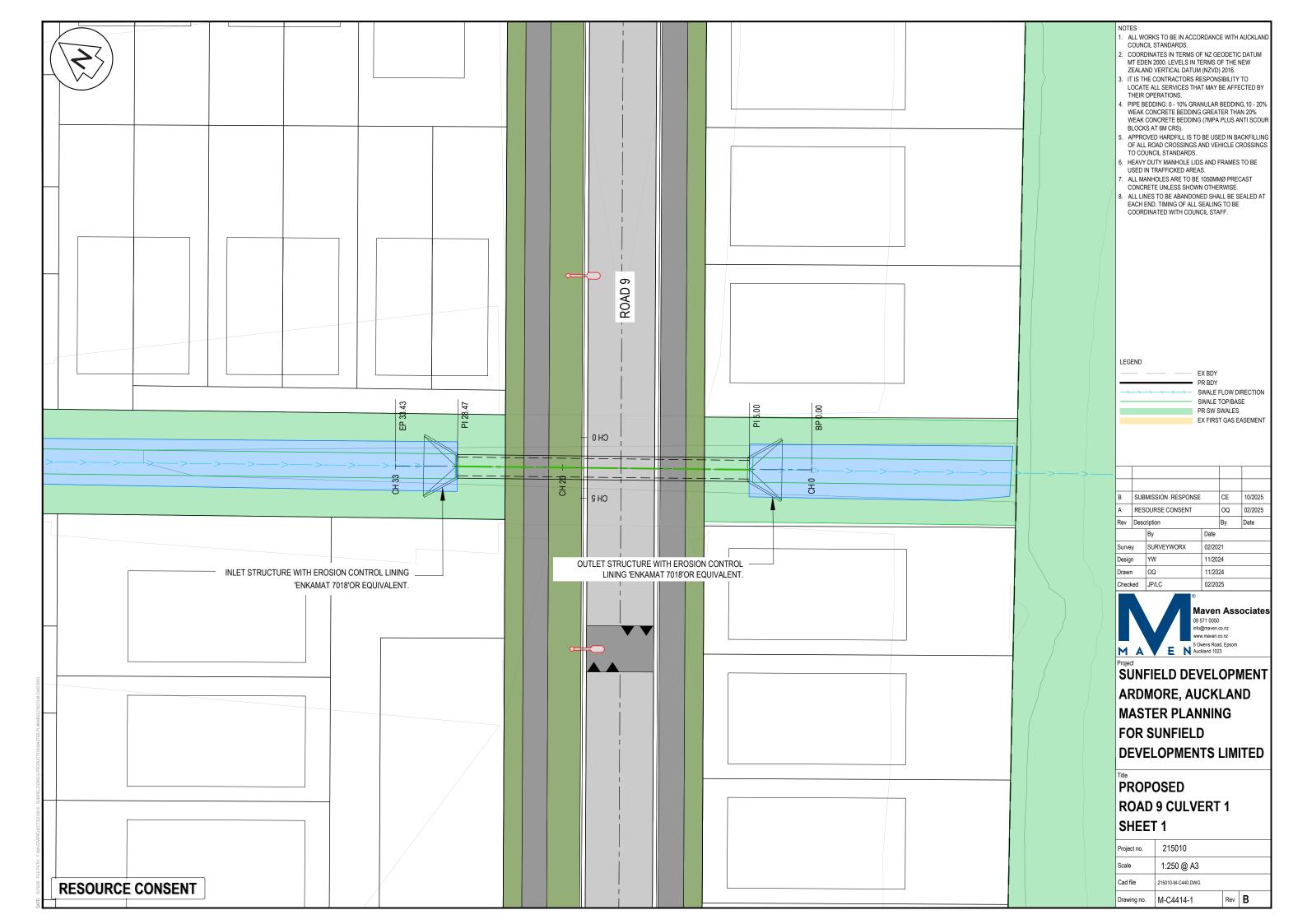
В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	RESOURSE CONSENT		OQ	02/2025
Rev	Desc	Description		Ву	Date
	Ву		Date		
Surve	у	SURVEYWORX	02/20	02/2021	
Desig	n	YW	11/20	24	
Drawn		OQ	11/2024		
Checked		JP/LC	02/20	25	

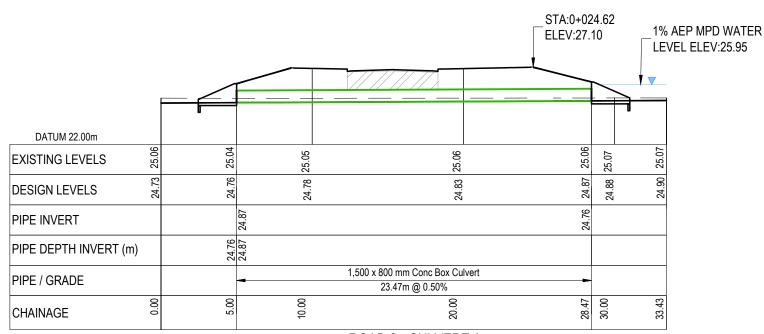


## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

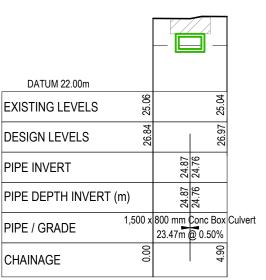
**PROPOSED ROAD 6 CULVERT 2** SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4413-2	Rev	В



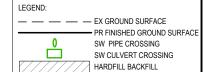


ROAD 9 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 9 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

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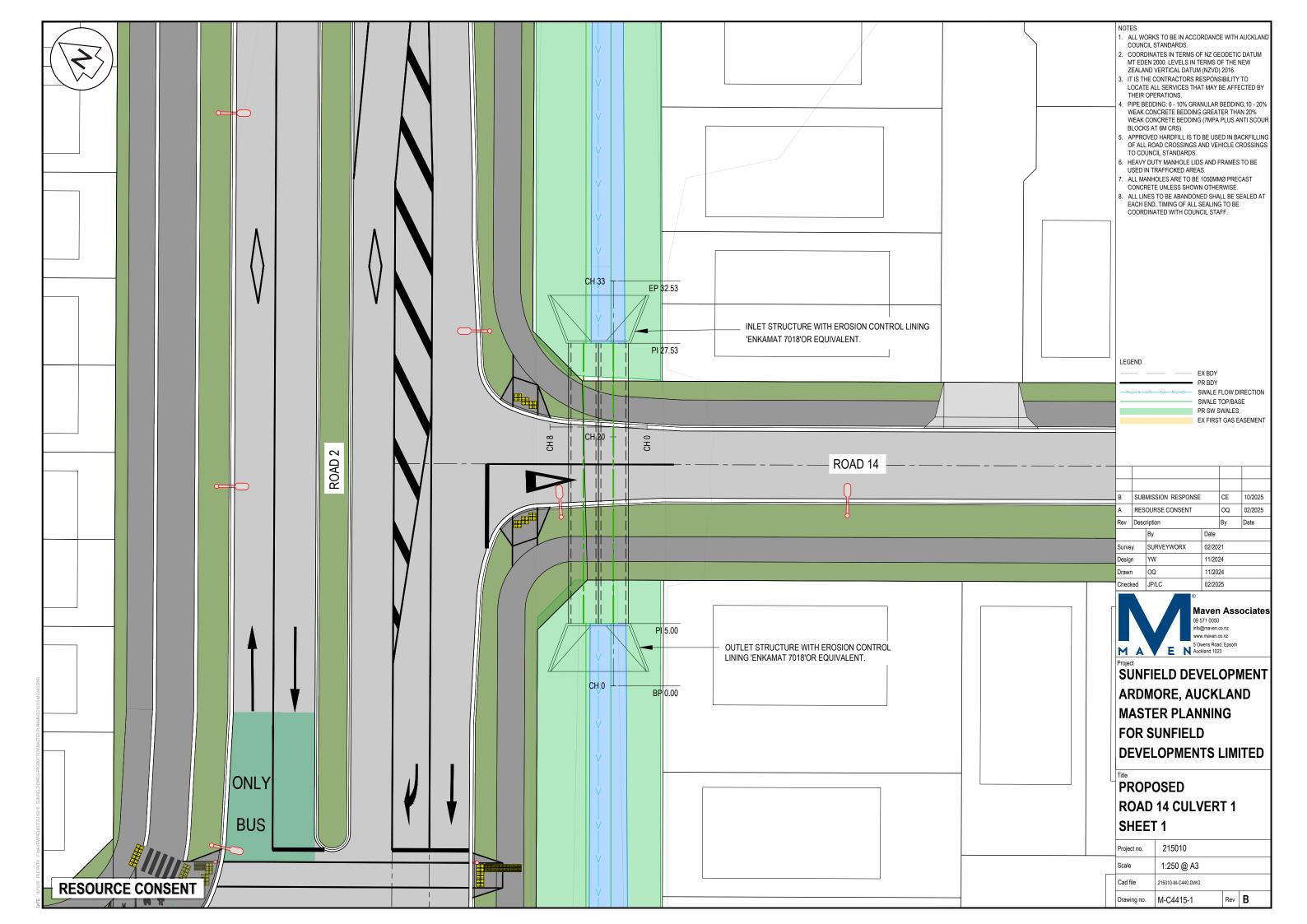
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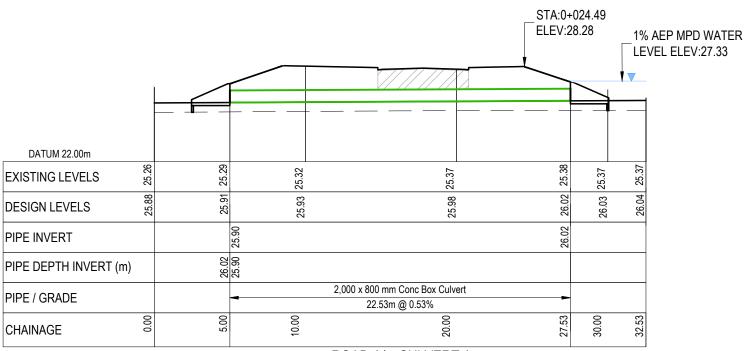


## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

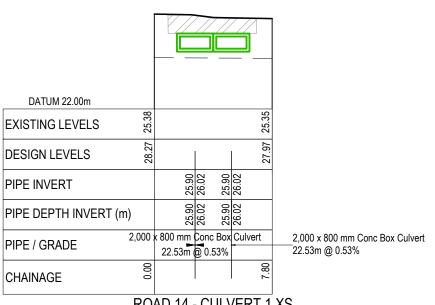
**PROPOSED ROAD 9 CULVERT 1** SHEET 2

Project no.	215010			
Scale	1:250 @ A3			
Cad file	215010-M-C440.DWG			
Drawing no.	M-C4414-2	R	ev	В





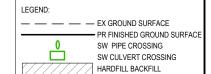
ROAD 14 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 14 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

#### NOTES

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В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	cription		Ву	Date
		Ву	Date		
Surve	y	SURVEYWORX	02/202	21	
Design		YW	11/2024		
Drawn		OQ	11/2024		
Checked		JP/LC	02/20	25	

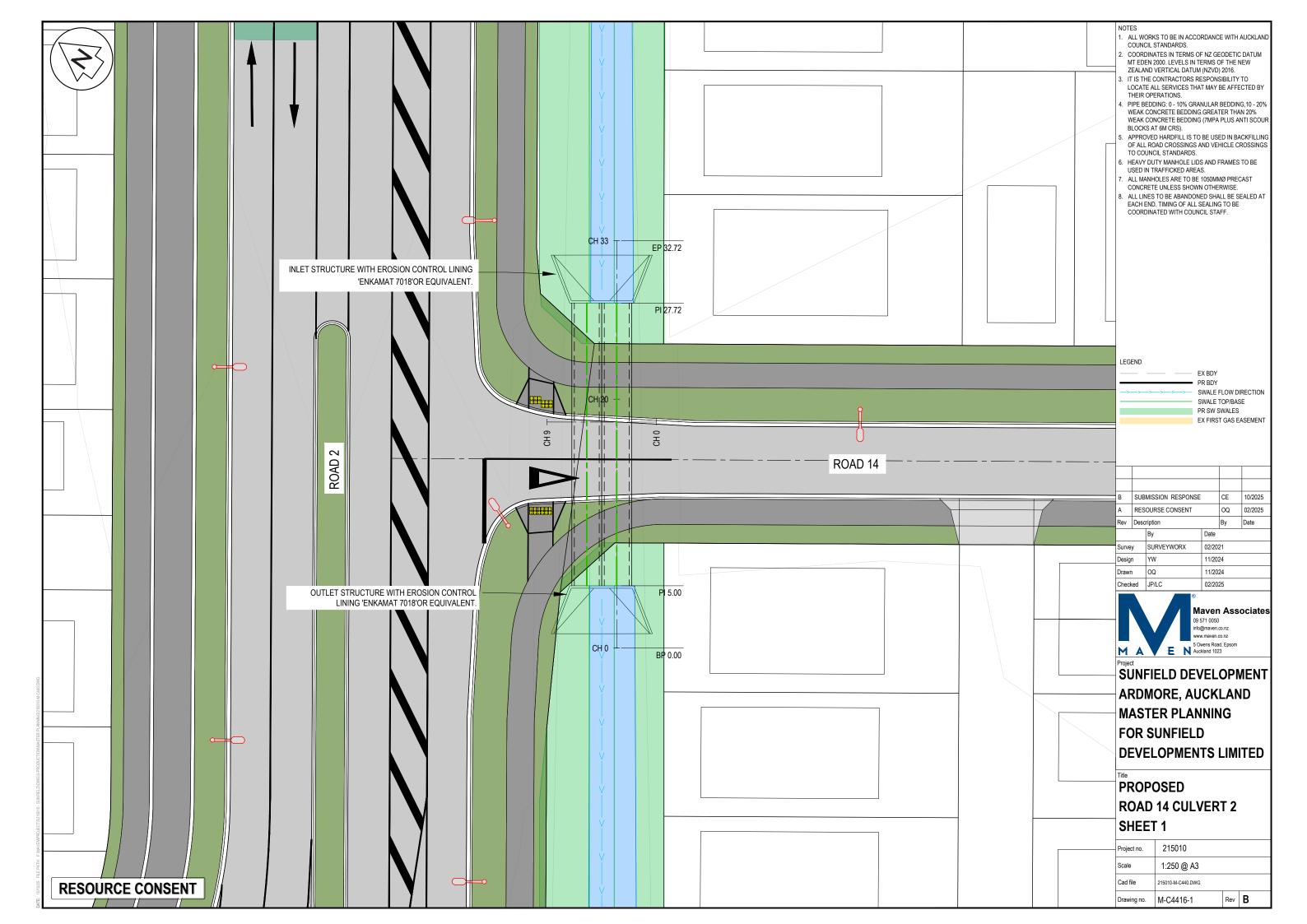


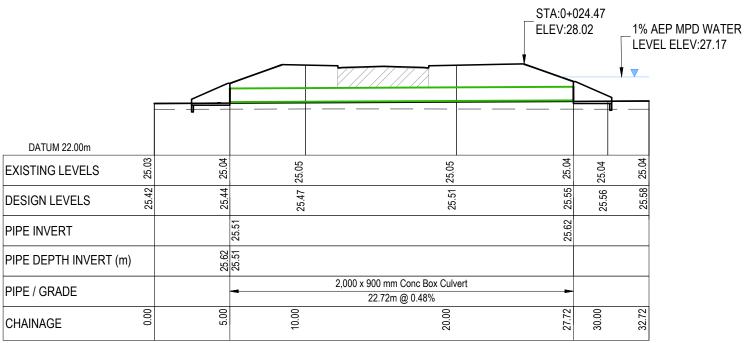
## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED
ROAD 14 CULVERT 1

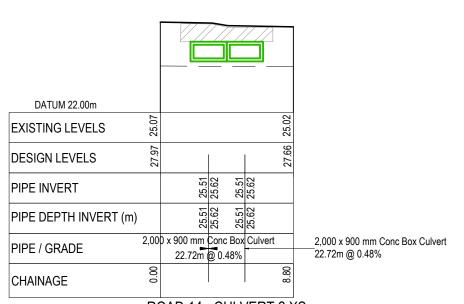
### SHEET 2

Drawing no.	M-C4415-2	Rev	В
Cad file	215010-M-C440.DWG		
Scale	1:250 @ A3		
Project no.	215010		





ROAD 14 - CULVERT 2 SCALE: HORI 1:250 VERT 1:250



ROAD 14 - CULVERT 2 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

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LEGEND:

— EX GROUND SURFACE - PR FINISHED GROUND SURFACE SW PIPE CROSSING SW CULVERT CROSSING HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	scription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/20	21	
Desig	ın	YW	11/2024		
Draw	n	OQ	11/2024		
Chec	ked	JP/LC	02/20	25	

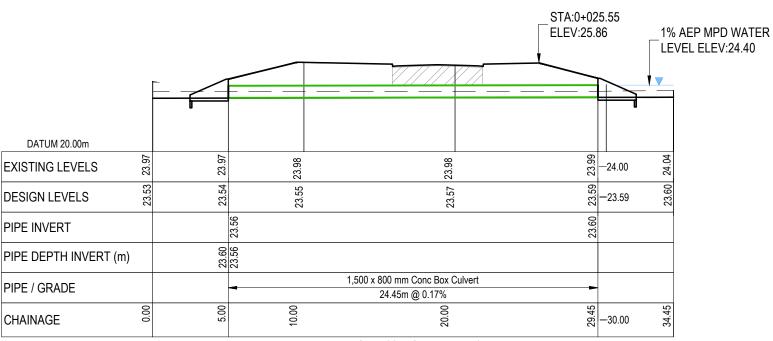


## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

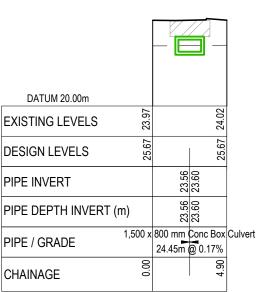
## **PROPOSED ROAD 14 CULVERT 2** SHEET 2

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Cad file	215010-M-C440.DWG		
Drawing no.	M-C4416-2	Rev	В





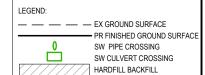
ROAD19 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 19 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

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В		SUB	MISSION RESPONSE		CE	10/2025
Α		RESOURSE CONSENT			OQ	02/2025
Re	ev	Desc	Description		Ву	Date
	•		Ву	Date		
Sı	Survey		SURVEYWORX	02/202	21	
De	Design		YW	11/2024		
Dr	Drawn		OQ	11/2024		
CI	Checked		JP/LC	02/20	25	

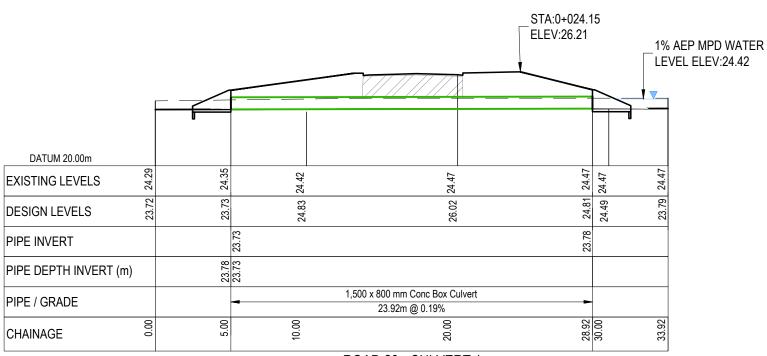


## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

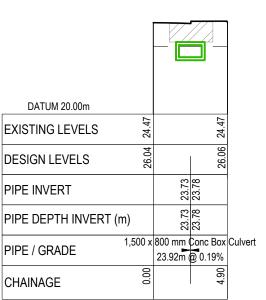
## PROPOSED **ROAD 19 CULVERT 1** SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4417-2	Rev	В





ROAD 20 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 20 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

#### **RESOURCE CONSENT**

#### NOTES

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PR FINISHED GROUND SURFACE
PR FINISHED GROUND SURFACE
SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	cription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/20:	02/2021	
Desig	n	YW	11/2024		
Drawn		OQ	11/2024		
Check	ced	JP/LC	02/20	25	

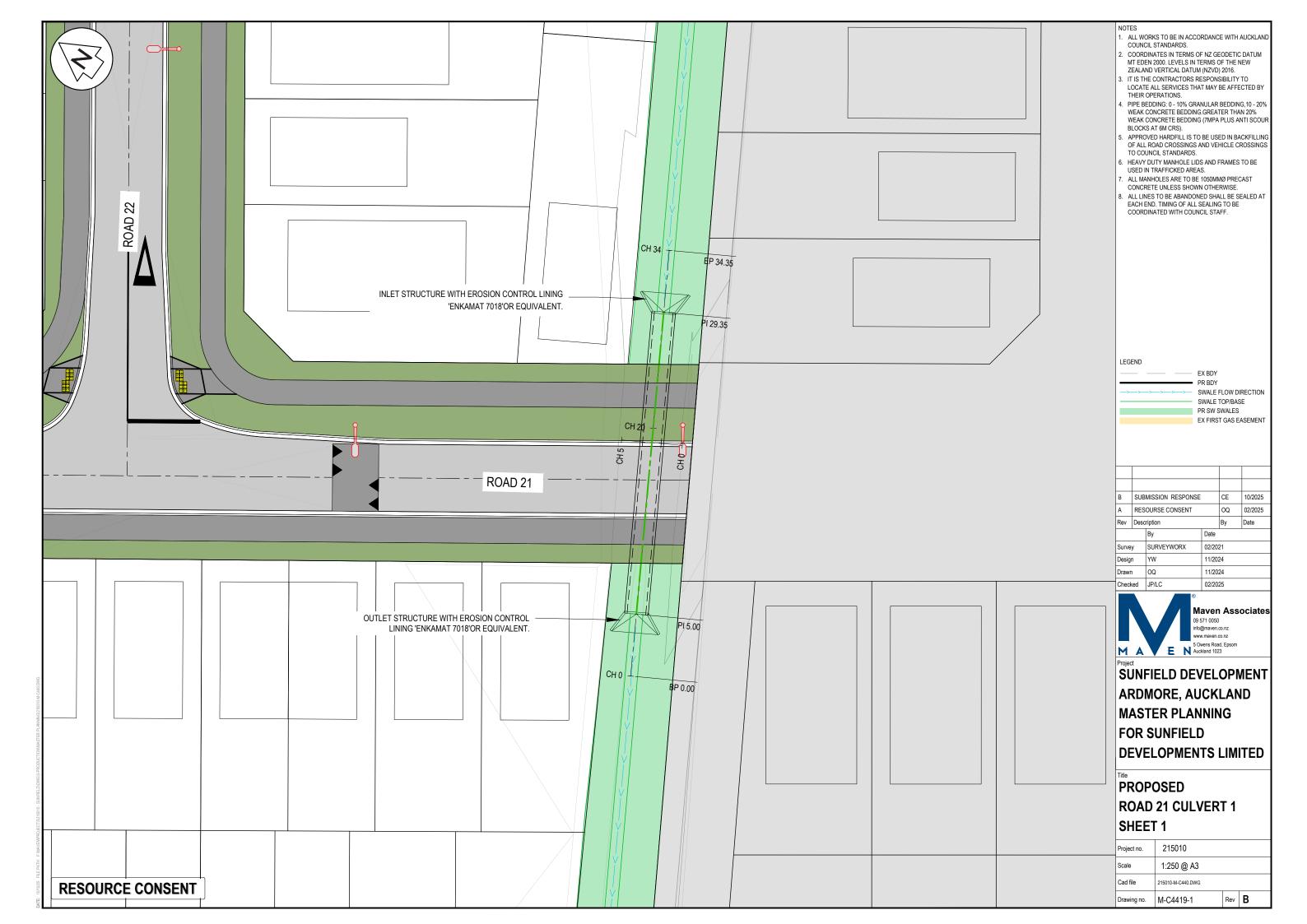


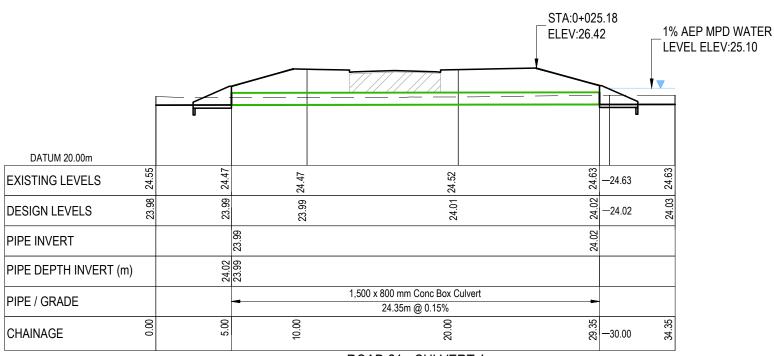
## SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

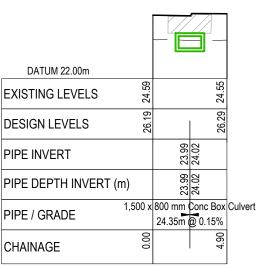
PROPOSED
ROAD 20 CULVERT 1
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4418-2	Rev	В





ROAD 21 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250

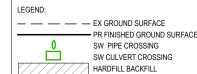


ROAD 21 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

# RESOURCE CONSENT

#### NOTES

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- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- . ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	escription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/2021		
Design		YW	11/2024		
Drawn		OQ	11/2024		
Check	ed	JP/LC	02/2025		

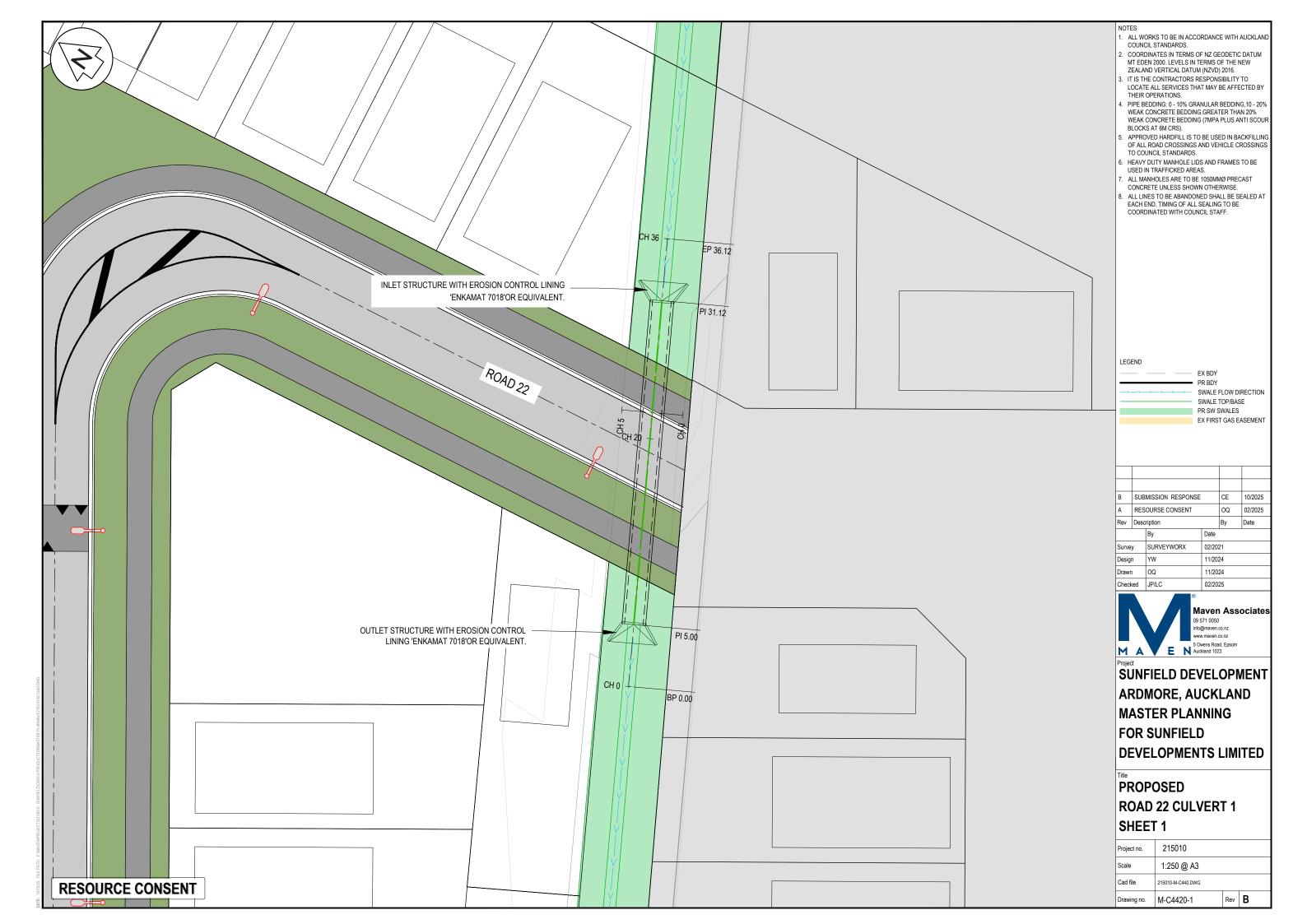


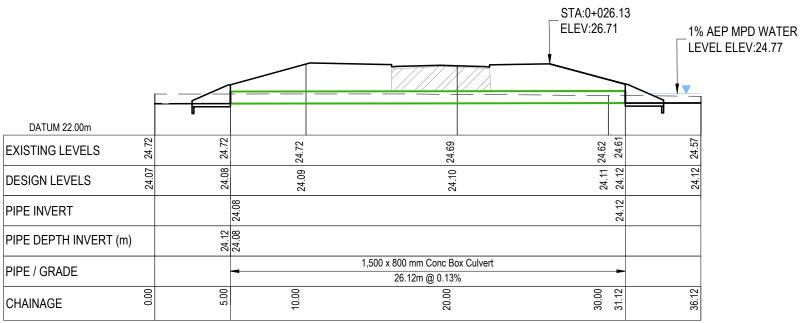
# SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Titlo

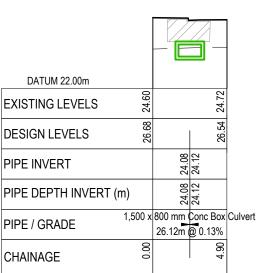
# PROPOSED ROAD 21 CULVERT 1 SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4419-2	Rev	В





ROAD 22 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD 22 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

# RESOURCE CONSENT

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- 3. 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%
   WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF
  BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



PR FINISHED GROUND SURFACE
PR FINISHED GROUND SURFACE
SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
AA	RRECS	OURSE CONSENT		C300X	02/2025
Rev	Desc	ription	Ву	Date	
		Ву	Date	Date	
Surve	у	SURVEYWORX	02/2021		
Desig	n	YW	11/2024		
Drawr	1	OQ	11/2024		
Check	ced	JP/LC	02/2025		

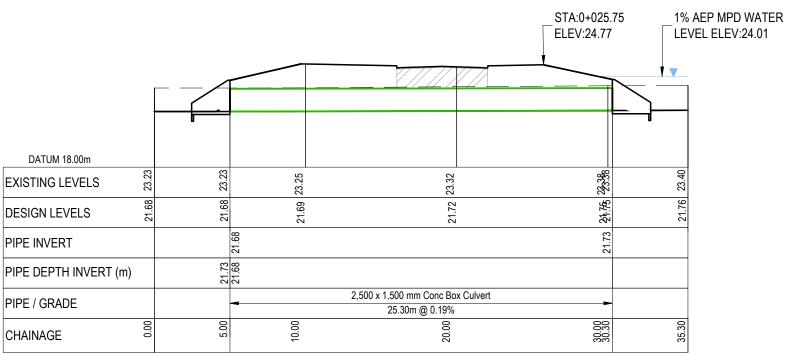


# SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

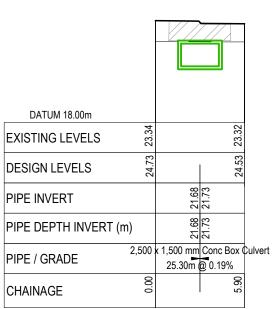
Title

PROPOSED
ROAD 22 CULVERT 1
SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4420-2	Rev	В



ROAD 25 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



**ROAD 25 - CULVERT 1 XS** SCALE: HORI 1:250 VERT 1:250

# **RESOURCE CONSENT**

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUP BLOCKS AT 6M CRS).
- 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  ${\sf USED\ IN\ TRAFFICKED\ AREAS}.$
- . ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



HARDFILL BACKFILL

11/2024

SUBMISSION RESPONSE RESOURSE CONSENT OQ 02/2025 Description Survey SURVEYWORX 02/2021 11/2024 Design

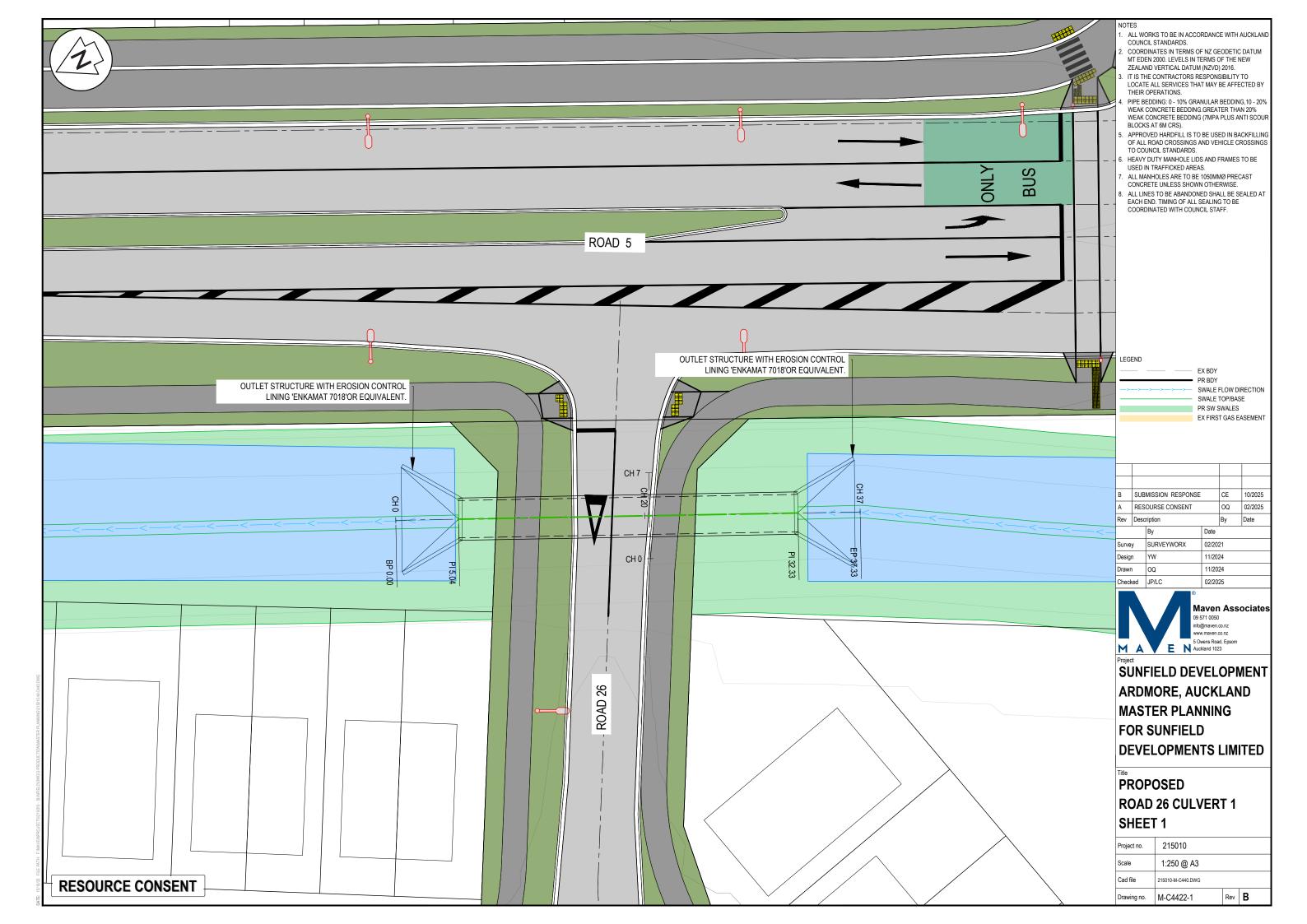


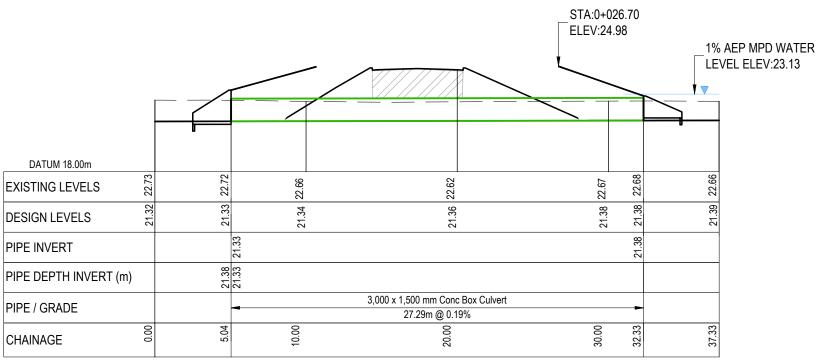
OQ

# **SUNFIELD DEVELOPMENT** ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

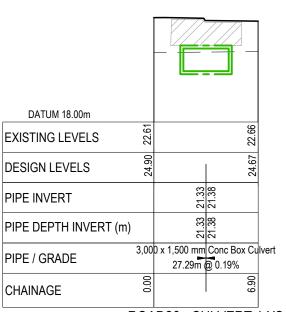
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Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4421-2	Rev	В





ROAD 26 - CULVERT 1 SCALE: HORI 1:250 VERT 1:250



ROAD26 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

**RESOURCE CONSENT** 

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUP BLOCKS AT 6M CRS).
- 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  ${\sf USED\ IN\ TRAFFICKED\ AREAS}.$
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



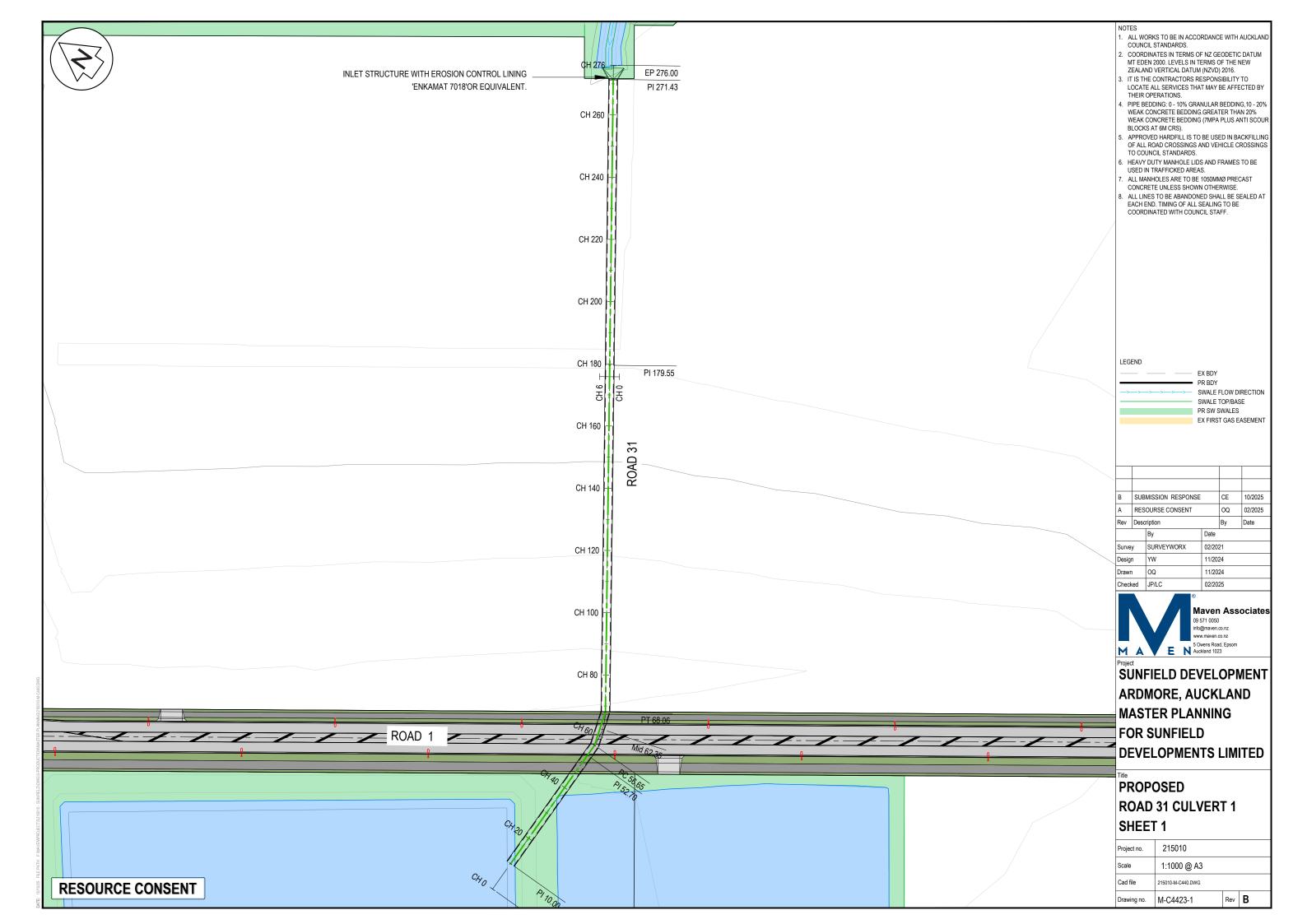
SUBMISSION RESPONSE RESOURSE CONSENT OQ 02/2025 Description Survey SURVEYWORX 02/2021 11/2024 Design 11/2024 OQ Checked JP/LC 02/2025



# **SUNFIELD DEVELOPMENT** ARDMORE, AUCKLAND **MASTER PLANNING** FOR SUNFIELD **DEVELOPMENTS LIMITED**

# **PROPOSED ROAD 26 CULVERT 1** SHEET 2

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4422-2	Rev	В



							/////	
DATUM 16.00m								
EXISTING LEVELS 2	21.29	21.36	21.45	21.62	21.87	21.91	21.94	21.96
DESIGN LEVELS	20.24	21.49	22.25	22.80	က	23.02	23.00	23.03
PIPE INVERT		19.90				+	20.58	20.75
PIPE DEPTH INVERT (m)	20.58	19.90					20.75	
PIPE / GRADE			2,500 x	1,000 mm Conc Box Culvert				000 mm Conc Box Culvert
				46.65m @ 1.47%				1.29m @ 1.46%
CHAINAGE		20.00	30.00	40.00	50.00	52.70	56.65	65.00

ROAD 31 - CULVERT 1 (CH0 - CH65) SCALE: HORI 1:250 VERT 1:250

		// //	// }						
		////	<u> </u>		/ <u>////////////////////////////////////</u>				
DATUM 16.00m									
EXISTING LEVELS	22.00	22.04	22.05	22.06	22.16	22.26	2	22.74	22.99
DESIGN LEVELS	23.06	23.12	23.03	22.74	23.07	23.40			24.38
PIPE INVERT	20.58	20.75	67.07						23.71
PIPE DEPTH INVERT (m)	20.75	23.71	67.07						
PIPE / GRADE			•	2,500 x 1,000 mm Conc Box Culvert 11.29m @ 1.46%		2,500 x 1,000 mm Co 203.33m @ 2			-
CHAINAGE	65.00	90.89	70.00	80.00	00.06	100.00	110.00	120.00	130.00

ROAD 31 - CULVERT 1 (CH65 - CH130) SCALE: HORI 1:250 VERT 1:250

# **RESOURCE CONSENT**

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
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- 3. 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	OURSE CONSENT		OQ	02/2025
Rev	Desc	cription		Ву	Date
		Ву	Date		
Surve	y	SURVEYWORX	02/202	21	
Desig	1	YW	11/2024		
Drawn		OQ	11/2024		
Check	ed	JP/LC	02/2025		



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD

DEVELOPMENTS LIMITED

Title
PROPOSED

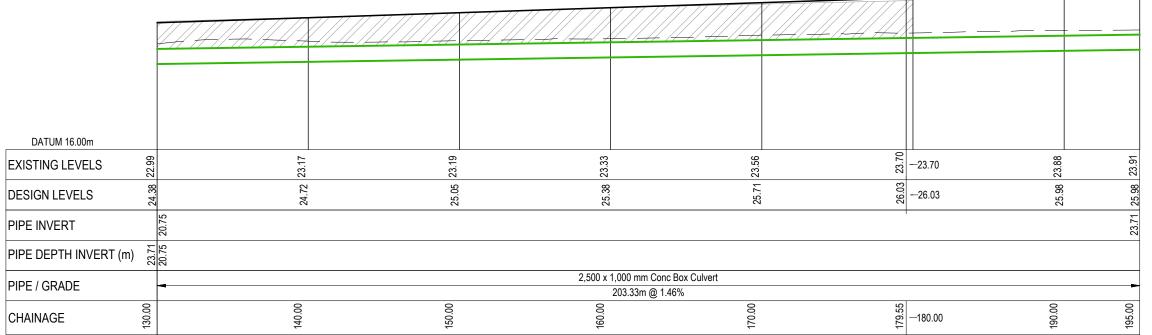
ROAD 31 CULVERT 1 SHEET 2

Project no. 215010

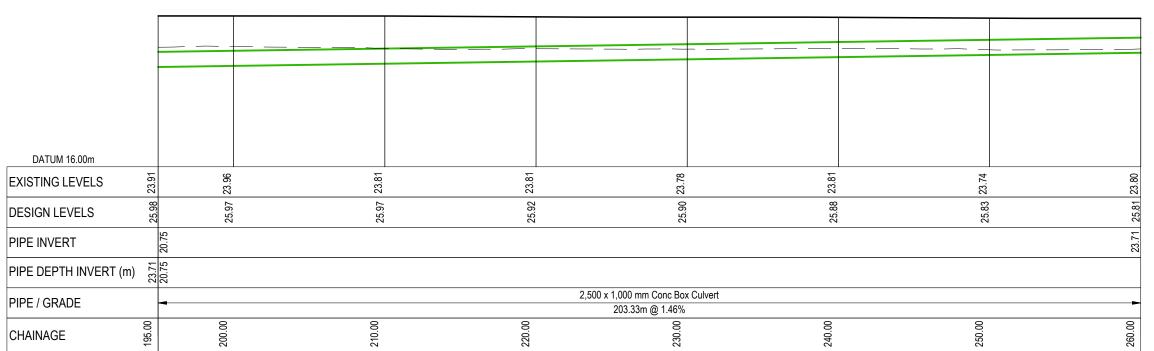
Scale 1:250 @ A3

Cad file 215010-M-C440.DWG

Drawing no. M-C4423-2 Rev B



ROAD 31 - CULVERT 1 (CH130 - CH195) SCALE: HORI 1:250 VERT 1:250



ROAD 31 - CULVERT 1 (CH195 -CH260) SCALE: HORI 1:250 VERT 1:250

## **RESOURCE CONSENT**

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
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- 5. 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.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

PR FINISHED GROUND SURFACE

PR FINISHED GROUND SURFACE

SW PIPE CROSSING
SW CULVERT CROSSING
HARDFILL BACKFILL

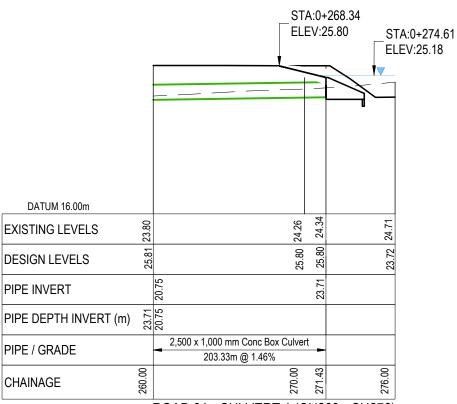
В	SUB	MISSION RESPONSE		CE	10/2025	
Α	RES	OURSE CONSENT		OQ	02/2025	
Rev	Desc	cription		Ву	Date	
		Ву	Date			
Surve	у	SURVEYWORX	02/20	02/2021		
Design		YW	11/2024			
Drawn		OQ	11/2024			
Check	ced	JP/LC	02/2025			



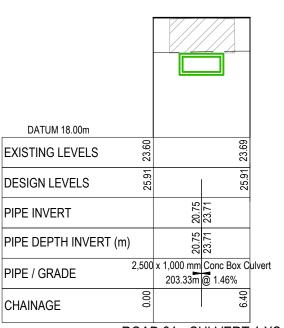
# SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED
ROAD 31 CULVERT 1
SHEET 3

Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4423-3	Rev	В



ROAD 31 - CULVERT 1 (CH260 - CH276) SCALE: HORI 1:250 VERT 1:250



ROAD 31 - CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

# **RESOURCE CONSENT**

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- 3. 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%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR
  BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING
   OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
   TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
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#### LEGEND:

EX GROUND SURFACE
 PR FINISHED GROUND SURFACE
 SW PIPE CROSSING
 SW CULVERT CROSSING
 HARDFILL BACKFILL

В	SUB	MISSION RESPONSE		CE	10/2025
Α	RES	RESOURSE CONSENT			02/2025
Rev	Desc	ription	Ву	Date	
		Ву	Date		
Surve	у	SURVEYWORX	02/2021		
Design		YW	11/2024		
Drawn		OQ	11/2024		
Check	ed	JP/LC	02/2025		

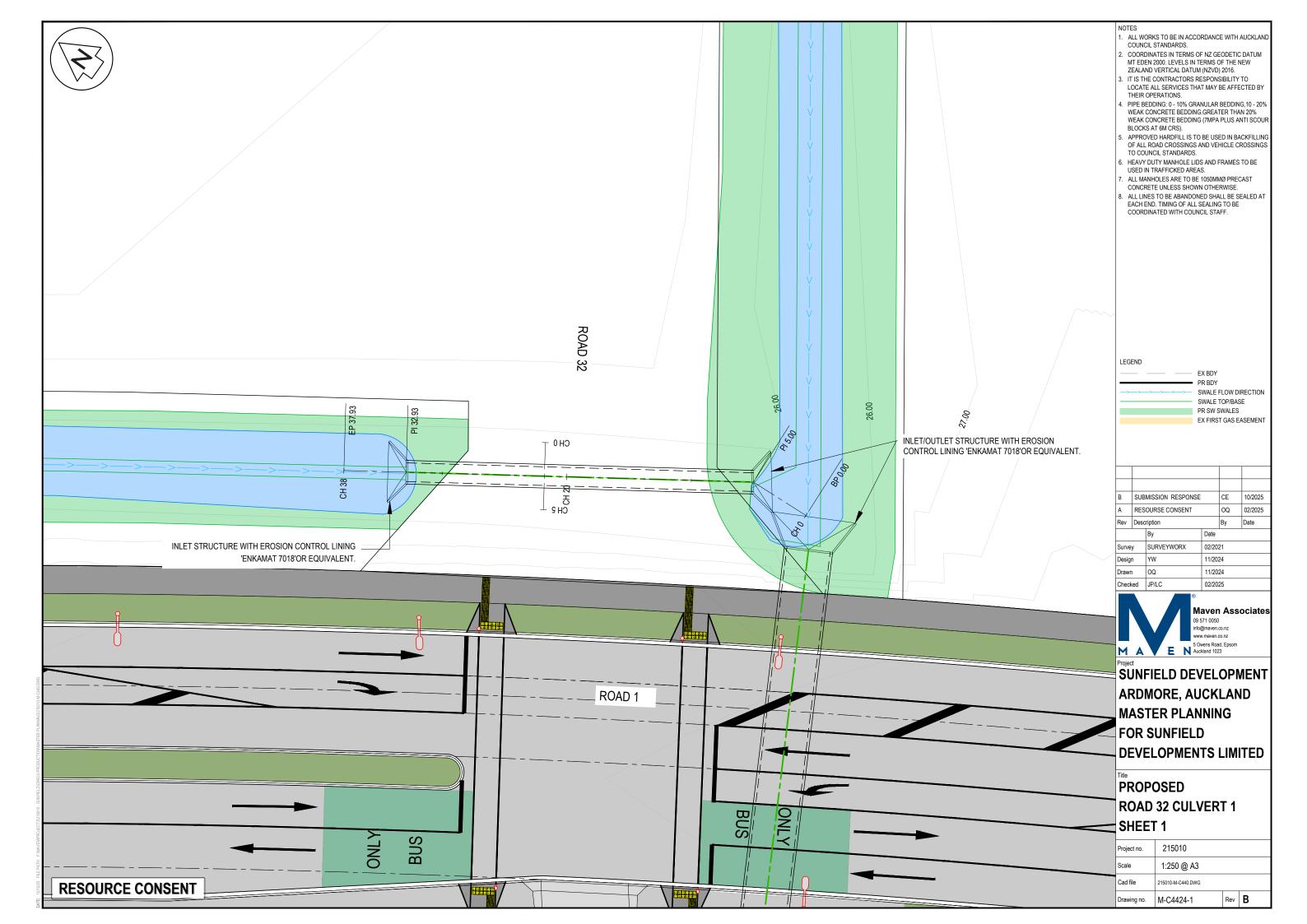


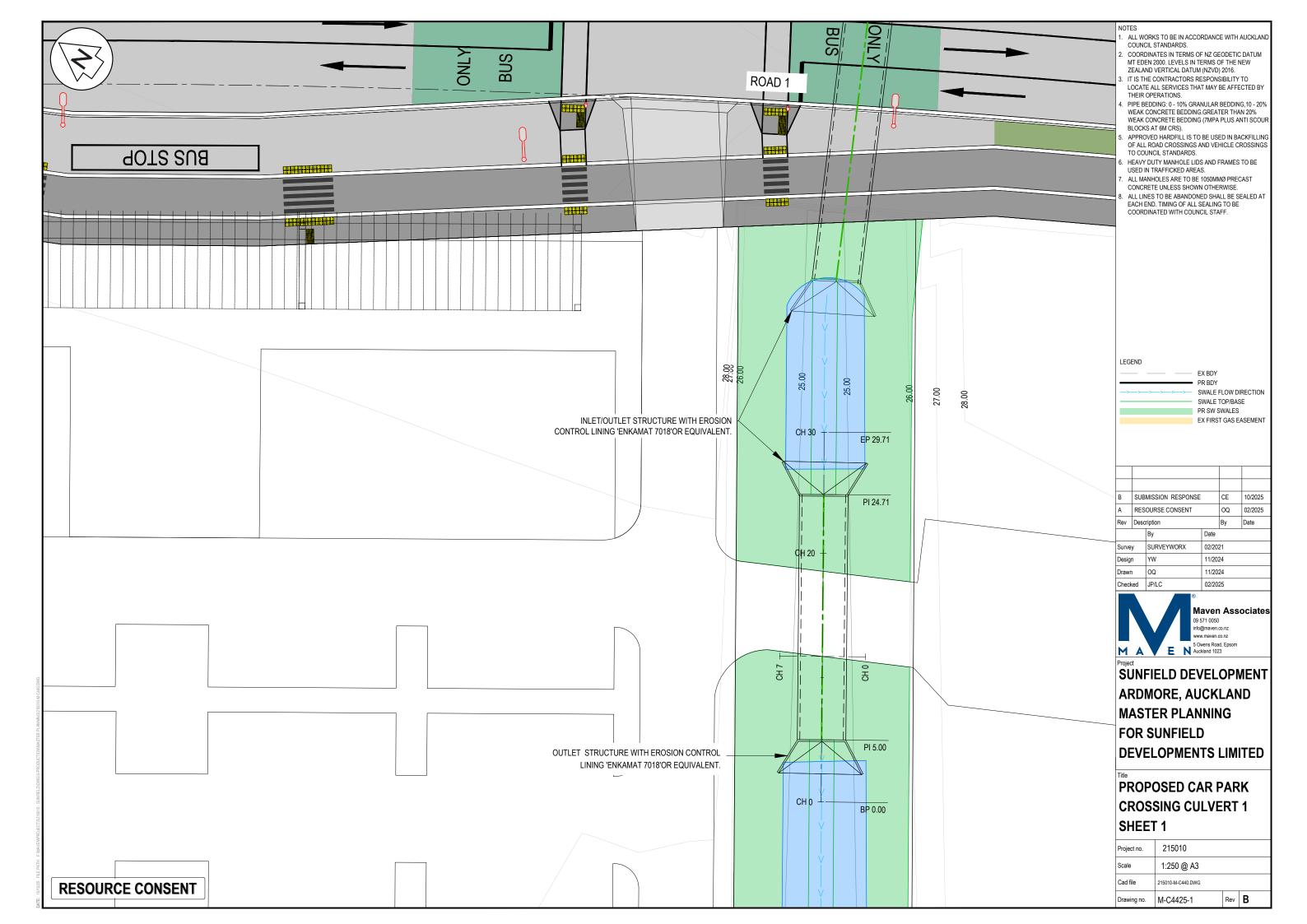
# SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

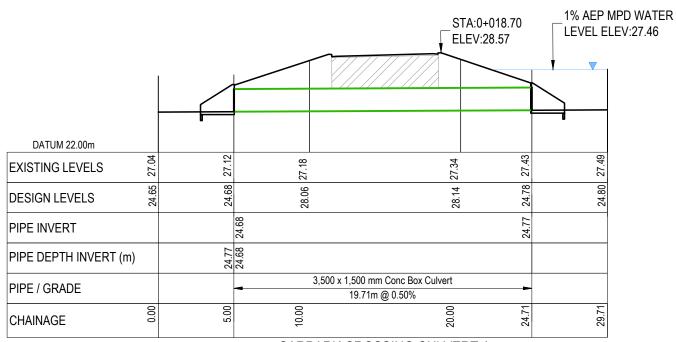
Title

# PROPOSED ROAD 31 CULVERT 1 SHEET 4

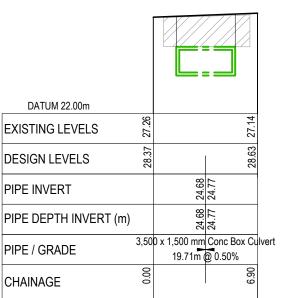
Project no.	215010		
Scale	1:250 @ A3		
Cad file	215010-M-C440.DWG		
Drawing no.	M-C4423-4	Rev	В







CARPARK CROSSING CULVERT 1 SCALE: HORI 1:250 VERT 1:250

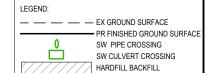


CARPARK CROSSING CULVERT 1 XS SCALE: HORI 1:250 VERT 1:250

RESOURCE CONSENT

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
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  WEAK CONCRETE BEDDING GREATER THAN 20%
  WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF
  BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
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В	SUB	MISSION RESPONSE		CE	10/2025		
Α	RES	OURSE CONSENT		OQ	02/2025		
Rev	Desc	ription		Ву	Date		
		Ву	Date				
Surve	y	SURVEYWORX	02/202	21			
Desig	ı	YW	11/202	24	24		
Drawn	ı	OQ	11/2024				
Check	ed	JP/LC	02/2025				



# SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

# PROPOSED CAR PARK CROSSING CULVERT 1 SHEET 2

Project no.	215010			
Scale	1:250 @ A3			
Cad file	215010-M-C440.DWG			
Drawing no.	M-C4425-2	R	ev	В

	BAFFLEBL	OOK (ENE	RGYDISSIF	ATORS)						
*ALL DIMESION ARE IN METERES (m)										
		WIDTH								
		OF	OF ROW BLOCK							
STRUCTURE	BLOCK	LOCK BLOCK SPACING		WIDTH	QTYOF					
NAME	HBGHT	'W	'SD'	'SW	BLOCKS					
R1-C2	R1-C2 0.75		2.90	2.45	3.00					
R5-C2	0.50	1.50	1.45	1.00	3.00					

		RIPRAPAF	PRONS				
	*ALL DIMI	ESION ARE	IN METER	<b>:</b> S(m)			
					TOTAL		
STRUCTURE	LENGTH	WIDTH	ROCK	APRON	LAYEROF		
NAME	י'ַניי	'W	SIZE	D⊞TH	ROOK		
R1-C2	6.0	8.5	0.125	0.25	2		
R5-C2	4.0	5.8	0.125	0.25	2		

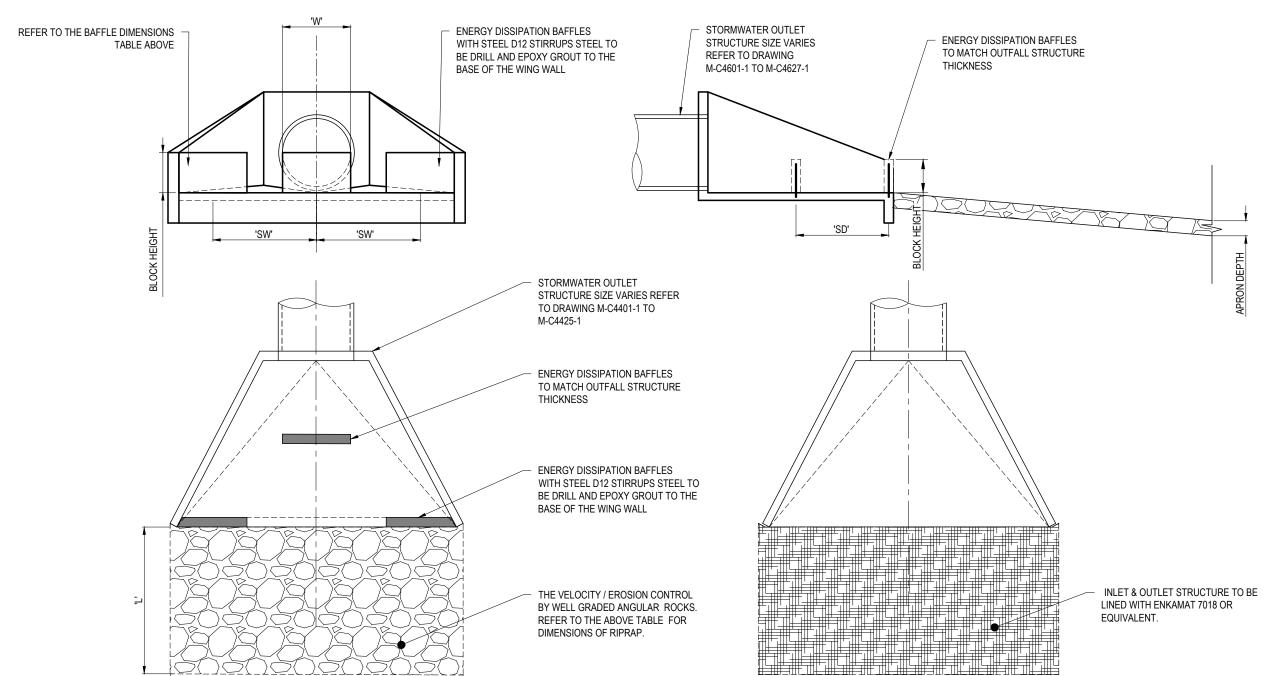
#### NOTES

ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.

ZEALAND VERTICAL DATUM (NZVD) 2016.

- COUNCIL STANDARDS.
   COORDINATES IN TERMS OF NZ GEODETIC DATUM
   MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- 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 (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).

  5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING
   OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
   TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
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В	SUB	MISSION RESPONSE		CE	10/2025			
Α	RES	OURSE CONSENT		OQ	02/2025			
Rev	Desc	ription		Ву	Date			
		Ву	Date					
Surve	y	SURVEYWORX	02/202	21				
Desig	ı	YW	11/202	24				
Drawn	1	OQ	11/20	24				
Check	ed	JP/LC	02/20:	25				



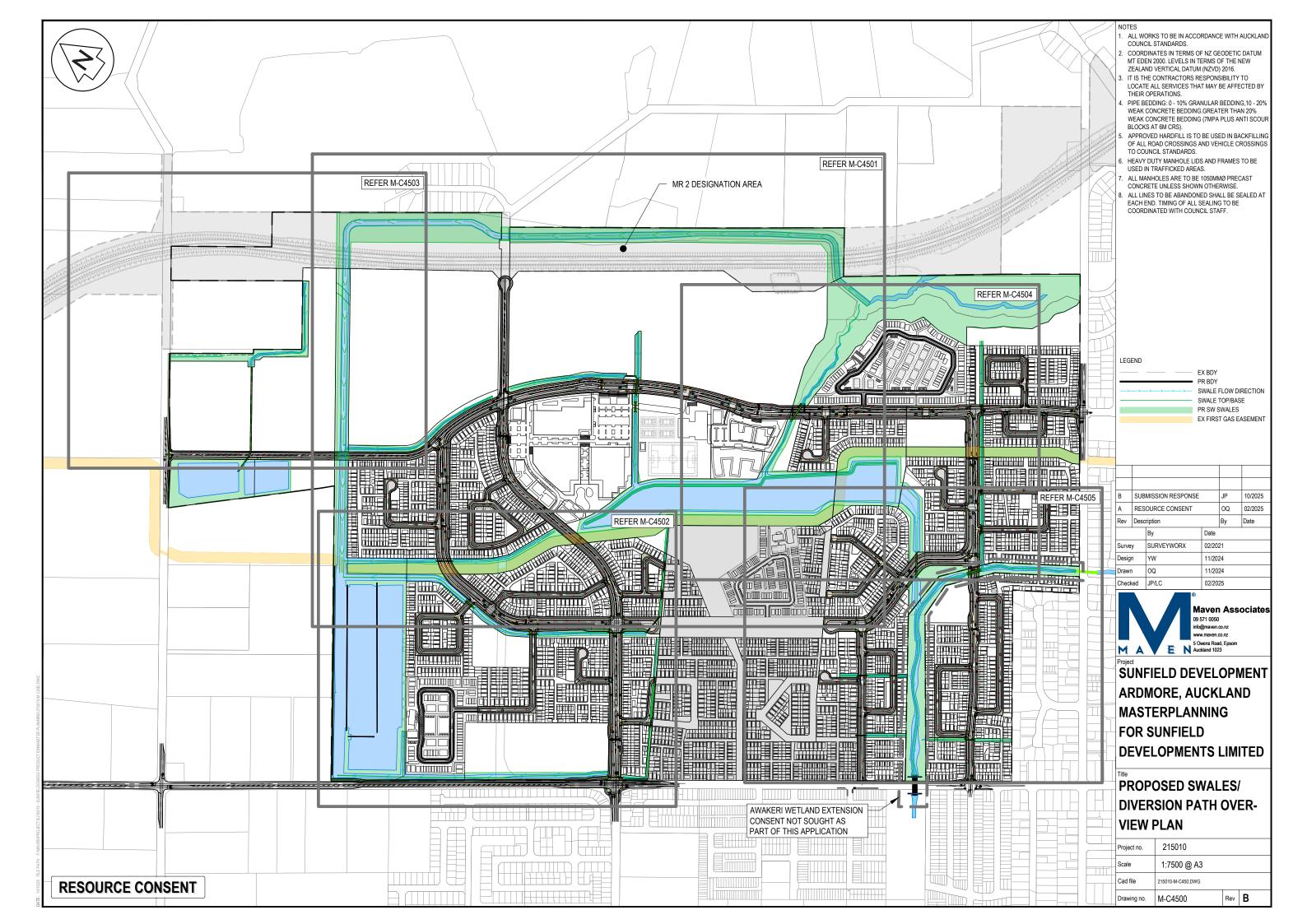
SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTER PLANNING

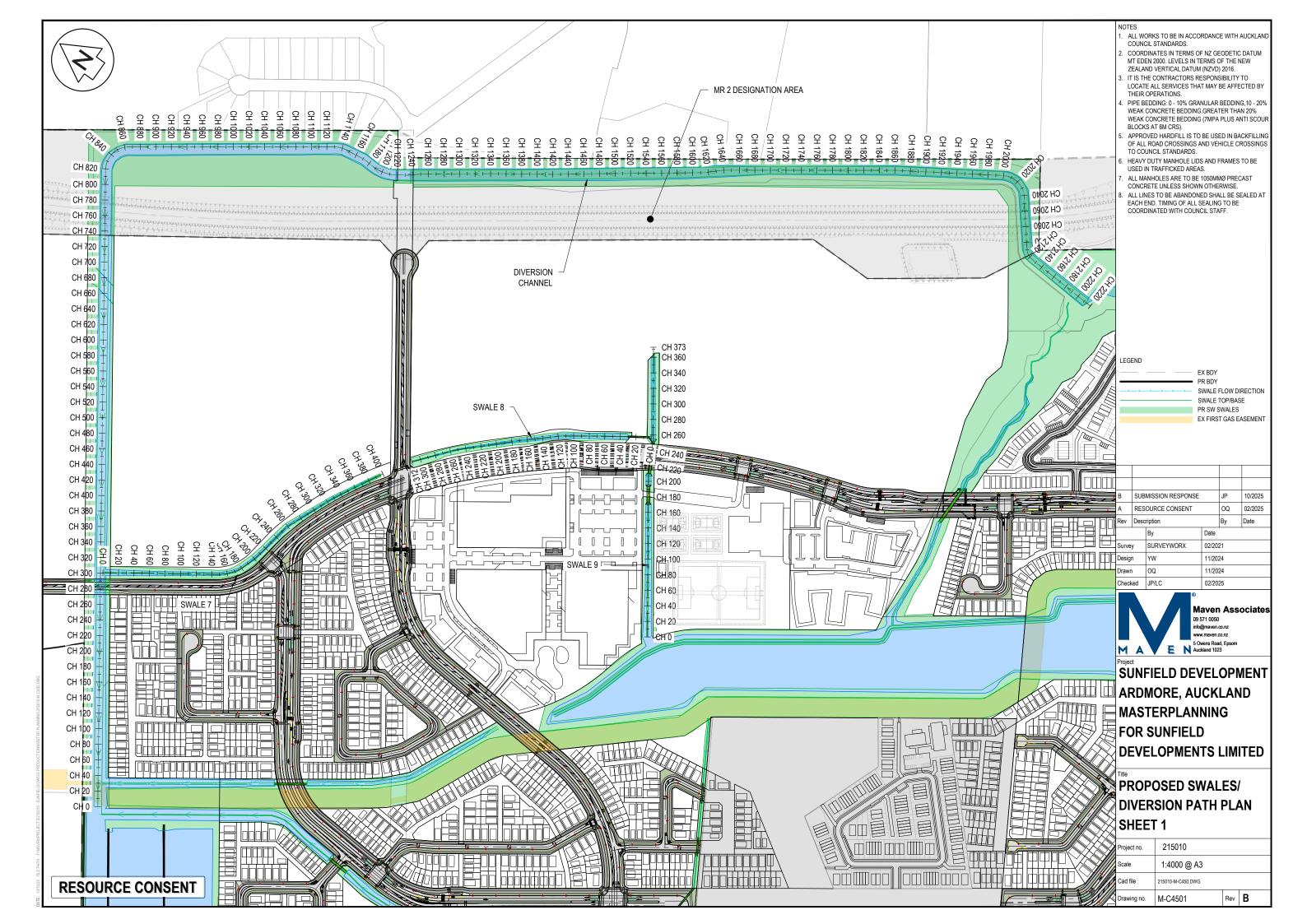
FOR SUNFIELD DEVELOPMENTS LIMITED

PROPOSED
INLET & OUTFALL
DETAIL

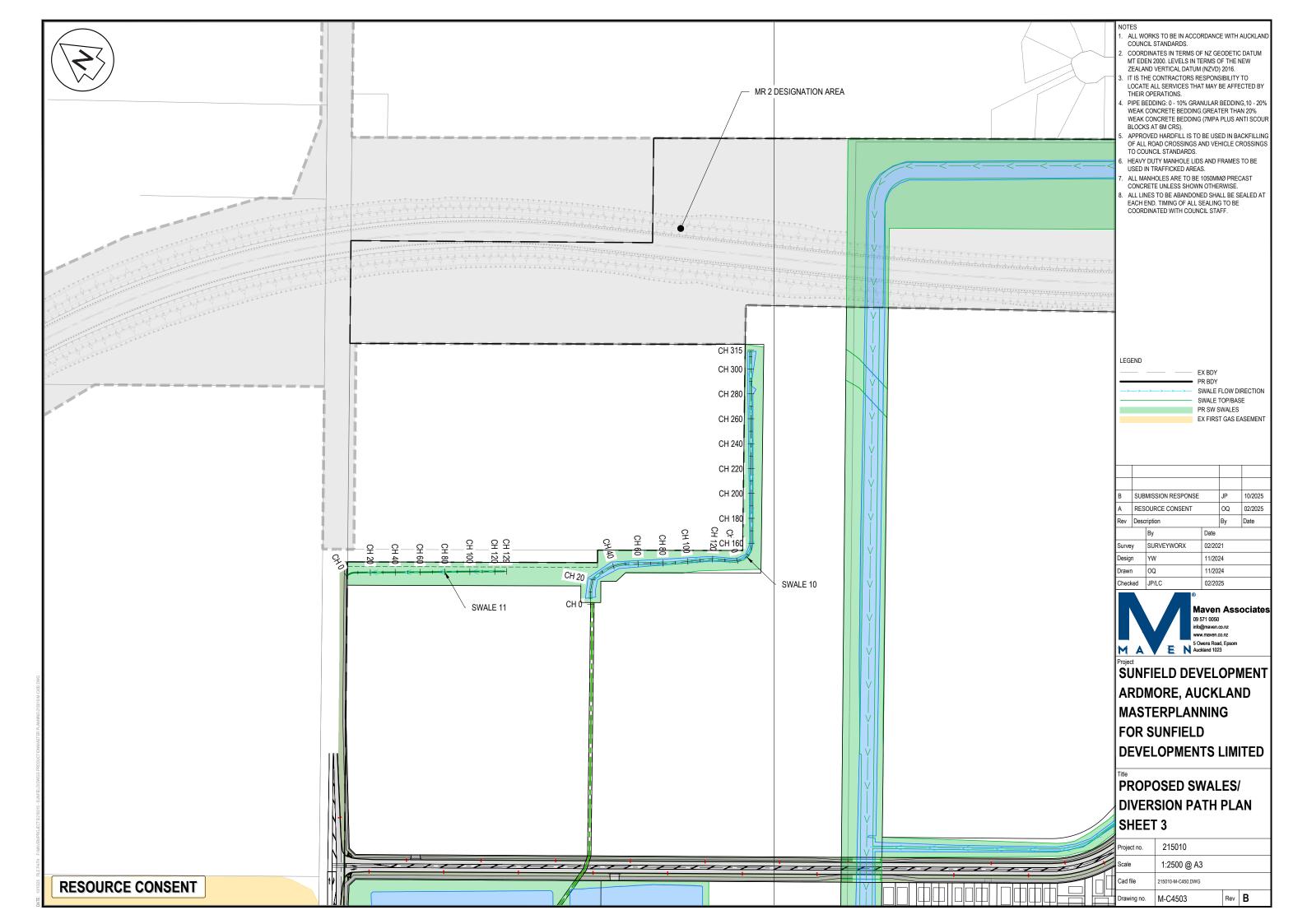
Pi	roject no.	215010								
S	cale	1:50_1 @ A3	1:50_1 @ A3							
С	ad file	215010-M-C440.DWG								
D	rawing no.	M-C4430	Rev	В						

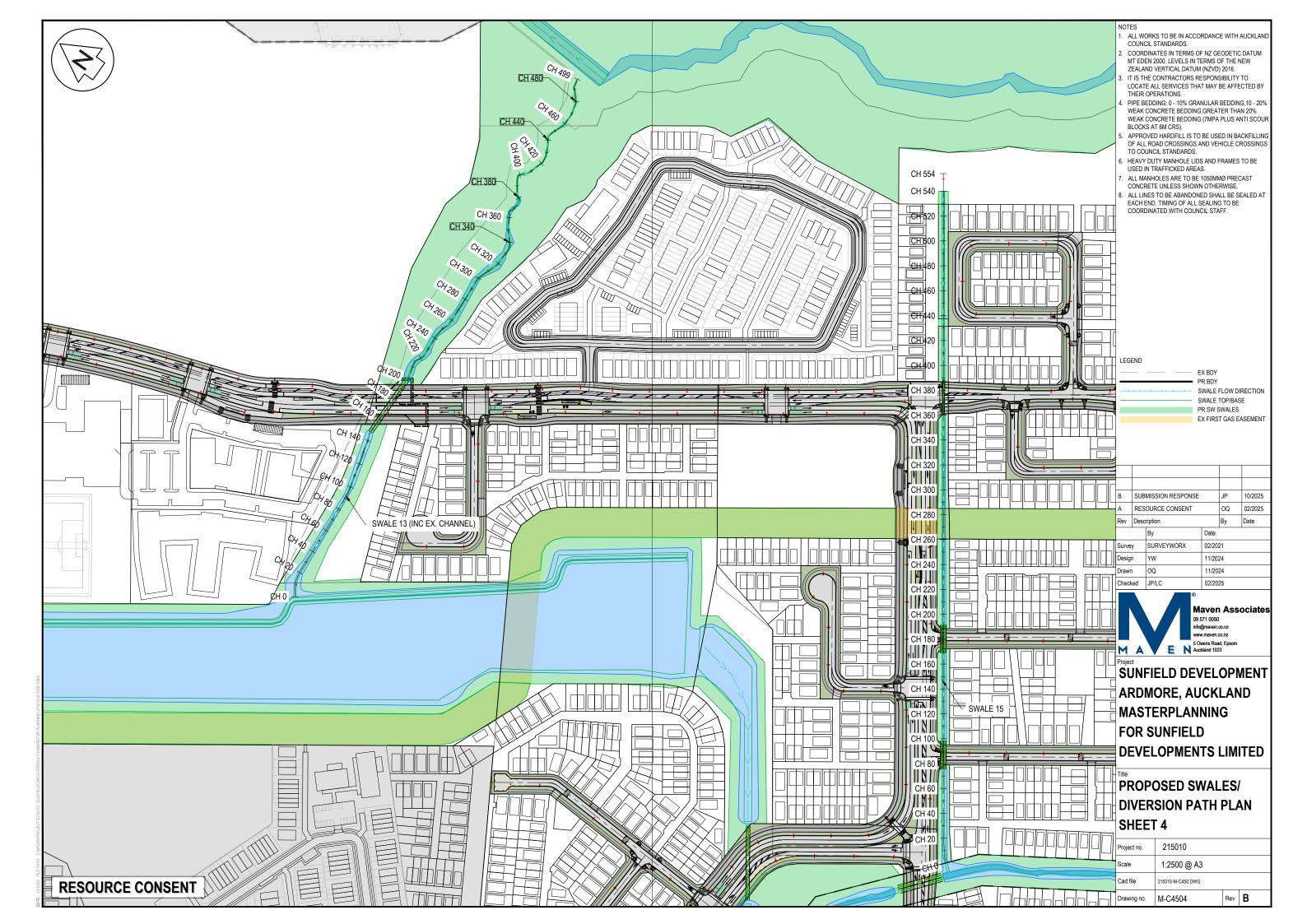
**RESOURCE CONSENT** 



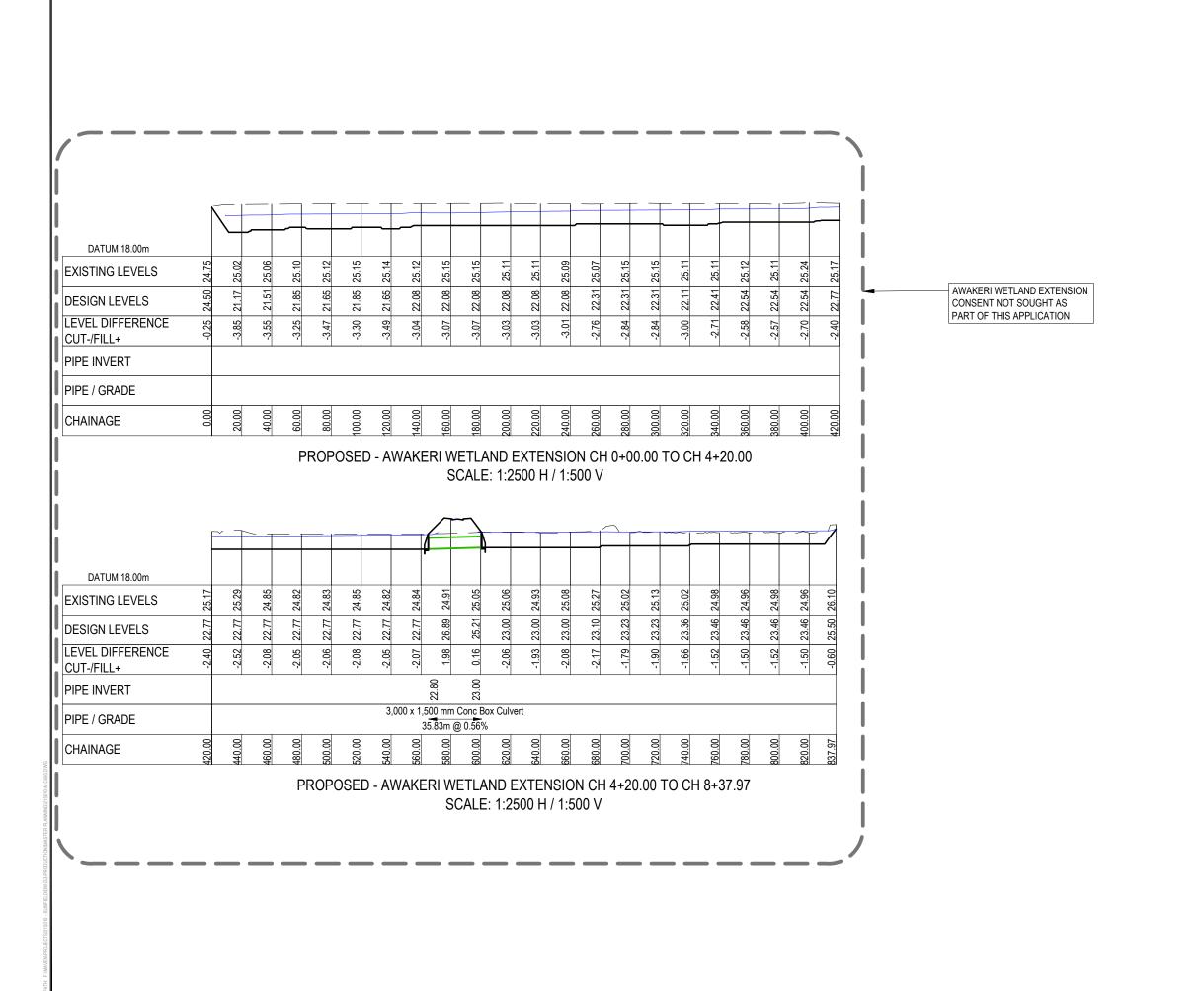












RESOURCE CONSENT

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- 3. 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

EX GROUND SURFACE
PR FINISHED GROUND SURFACE
1% AEP FLOOD LEVEL (MPD)
SW CULVERT CROSSING

	SUB	MISSION RESPONSE		JP	10/2025		
	RES	OURCE CONSENT		OQ	02/2025		
/	Desc	ription		Ву	Date		
		Ву	Date				
ve	у	SURVEYWORX	02/2021				
ini	1	VW	11/2024				

MA

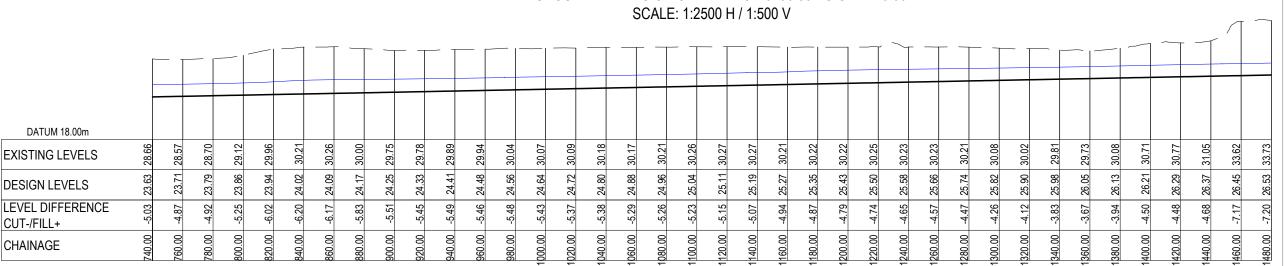
SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

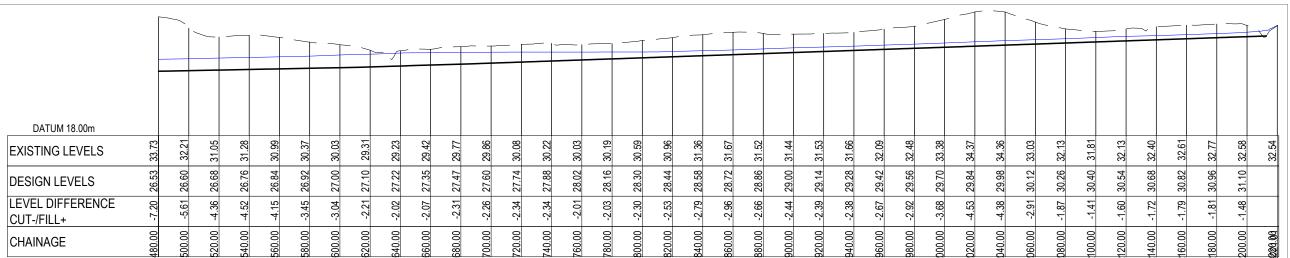
Project no.	215010		
r roject no.	210010		
Scale	1:2500 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4510	Rev	В

#### DATUM 18.00m 21.88 22.15 22.40 22.45 22.49 23.72 28.65 21.97 22.07 22.17 25.73 25.87 25.73 25.64 25.89 27.63 27.25 26.76 26.88 27.17 27.86 **EXISTING LEVELS** 21.33 21.19 21.35 21.65 22.17 22.22 22.45 23.00 23.08 23.39 23.55 21.27 22.07 22.53 22.84 23.24 23.47 DESIGN LEVELS 33 LEVEL DIFFERENCE -3.11 -0.55 -1.06 -1.03 -0.88 -0.82 -0.80 -0.49 -0.34 -0.33 -0.28 -0.27 -0.63 -3.52 -3.50 -3.50 -3.28 -3.28 -3.53 -4.63 -4.09 -3.52 -5.10 -0.84 -4.96 -4.24 -4.07 CUT-/FILL+ 20.00 20.00 00.09 00.09 280.00 00.00 00.00 120.00 40.00 .80.00 40.00 80.00 20.00 80.00 20.00 740.00 00.09 80.00 00.00 40.00 00.00 20.00 40.00 20.00 40.00 00.09 80.00 00.09 00.00 20.00 00.09 00.00 00.09 00.00 40.00 CHAINAGE

PRODUCTION - DIVERSION CHANNEL CH 0+00.00 TO CH 7+40.00 SCALE: 1:2500 H / 1:500 V



# PRODUCTION - DIVERSION CHANNEL CH 7+40.00 TO CH 14+80.00 SCALE: 1:2500 H / 1:500 V



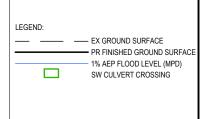
PRODUCTION - DIVERSION CHANNEL CH 14+80.00 TO CH 22+21.01 SCALE: 1:2500 H / 1:500 V

### RESOURCE CONSENT

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM
   MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- ZEALAND VERTICAL DATUM (NZVD) 2016.

  3. 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).
  - APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
  - 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



	В	SUB	MISSION RESPONSE		JP	10/2025
	Α	RES	OURCE CONSENT		OQ	02/2025
	Rev	Desc	ription		Ву	Date
			Ву	Date		
	Surve	y	SURVEYWORX	02/202	21	
	Desig	ı	YW	11/202	24	
	Drawn	1	OQ	11/20		
	Check	ed	JP/LC	02/20:	25	



SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Project no.	215010		
Scale	1:2500 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4511	Rev	В

	F				<del></del> -										_				<u></u>
DATUM 20.00m									٦					•					)
EXISTING LEVELS	24.03	24.11	24.17	24.21	24.19	24.07	23.97	23.99	24.13	24.22	24.22	24.32	24.47	24.47	24.47	24.47	24.47	24.44	24.47
DESIGN LEVELS	23.30	23.34	23.38	23.42	23.46	23.50	23.54	23.57	23.61	23.65	23.69	23.73	23.77	23.80	23.84	23.88	23.92	23.96	24.59
LEVEL DIFFERENCE CUT-/FILL+	-0.72	-0.77	-0.79	-0.79	-0.73	-0.58	-0.43	-0.42	-0.52	-0.57	-0.53	-0.60	-0.70	-0.66	-0.63	-0.59	-0.55	-0.48	0.12
PIPE INVERT		·	·					23.56	23.60				23.73	2	·				
PIPE / GRADE		1,500 x 800 mm Conc Box Culvert 24.45m @ 0.17%		1,50		mm Con 92m @ 0		ulvert											
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00		140.00		180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	356.72

PROPOSED - SWALE 1 CH 0+00.00 TO CH 3+56.72 SCALE: 1:2500 H / 1:500 V

	F		 -	+ -	+	_	- +	- +	-  -	-		_																			<b>=</b>	<b>=</b>	<b>=</b>		$\widetilde{\exists}$	1		
DATUM 18.00m																																						
EXISTING LEVELS	21.67	21.67	21 72	5 6	<u></u>	21.92	21.97	21.98	22.09	22.16	22.22	22.26	22.35	22.45	22.54	22.67	22.73	22.78	22.84	22.89	22.94	22.98	23.04	23.10	23.15	23.20	23.25	23.30	23.35	23.43	23.51	23.59	23.68	23.76	23.84	23.92	24.00	24.06
DESIGN LEVELS	20.70	20.73	   ~	5 5	70.81	20.84	20.87	20.89	20.92	20.95	20.98	21.00	21.03	21.06	21.09	21.12	21.15	21.18	21.23	21.23	21.25	21.28	21.31	21.34	21.36	21.39	21.42	21.45	21.48	21.50	21.53	21.56	21.59	24.27	24.26	21.89	22.44	22.98
LEVEL DIFFERENCE CUT-/FILL+	-0.97	-0.94	76 0-	5	-1.02	-1.08	-1.10	-1.09	-1.17	-1.21	-1.24	-1.25	-1.32	-1.39	-1.45	-1.56	-1.58	-1.61	-1.60	-1.66	-1.69	-1.70	-1.73	-1.76	-1.79	-1.81	-1.83	-1.85	-1.88	-1.93	-1.98	-2.04	-2.09	0.51	0.42	-2.03	-1.56	-1.08
PIPE INVERT																																		21.60		21.66		
PIPE / GRADE																																,	1,500 x 1	1,200 mi 39.82m	m Conc n @ 0.1	Box Cu 3%	lvert	
CHAINAGE	0.00	20.00	il c		80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00	120.00	440.00	160.00	180.00	200.00	520.00	240.00	260.00	280.00	900.00	320.00	340.00	960.00	980.00	00.00	720.00	740.00

PROPOSED - SWALE 2 CH 0+00.00 TO CH 7+40.00 SCALE: 1:2500 H / 1:500 V

							5
DATUM 18.00m							
EXISTING LEVELS	22.06	21.97	21.94	21.88	21.85	21.87	21.72
DESIGN LEVELS	21.18	21.02	21.12	21.23	21.33	21.44	21.49
LEVEL DIFFERENCE CUT-/FILL+	-0.88	-0.95	-0.82	-0.65	-0.52	-0.44	-0.23
PIPE INVERT							
PIPE / GRADE							
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	109.48

PROPOSED - SWALE 3 CH 0+00.00 TO CH 1+09.48 SCALE: 1:2500 H / 1:500 V

# **RESOURCE CONSENT**

#### NOTES

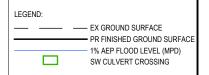
ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.

ZEALAND VERTICAL DATUM (NZVD) 2016.

- COUNCIL STANDARDS.

  COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- 3. 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 (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).

  5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.



В	SUB	MISSION RESPONSE		JP	10/2025
Α	RES	OURCE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/20	21	
Design	ı	YW	11/20	24	
Drawn	1	OQ	11/20	24	
Check	ed	JP/LC	02/20	25	



SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Cad file  Drawing no.	215010-M-C450.DWG	Rev	B
Scale	1:2500 @ A3		
Project no.			
Desired as	215010		

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DATUM 20.00m							F	٦					
EXISTING LEVELS	24.22	24.58	24.47	24.56	24.65	24.71	24.72	24.57	24.70	24.66	24.72	24.69	
DESIGN LEVELS	23.94	23.96	23.99	24.01	24.04	24.07	24.09	24.12	24.15	24.18	24.21	24.72 25.35	
LEVEL DIFFERENCE CUT-/FILL+	-0.28	-0.62	-0.49	-0.55	-0.61	-0.64	-0.63	-0.45	-0.55	-0.48	-0.51	0.03	
PIPE INVERT				23.99	24.02		24.08	24.12	·		·		
PIPE / GRADE		1,500		mm Coi 35m @ (	nc Box 0 0.15%	Culvert		-			0 x 800 2m @ 0		Box Culvert
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00 227.21	

PROPOSED - SWALE 4 CH 0+00.00 TO CH 2+27.21 SCALE: 1:2500 H / 1:500 V

																		~			
	E																				
DATUM 18.00m																					
EXISTING LEVELS	21.96	22.11	22.17	22.23	22.28	22.34	22.39	22.48	22.54	22.63	22.78	22.76	22.74	22.76	22.78	22.74	22.60	22.67	22.59	22.54	22.50
DESIGN LEVELS	20.71	20.75	20.79	20.83	20.87	20.91	20.95	20.99	21.03	21.07	21.11	21.15	21.18	21.23	21.26	21.30	21.34	21.38	21.42	21.46	21.50
LEVEL DIFFERENCE CUT-/FILL+	-1.25	-1.36	-1.38	-1.40	-1.41	-1.43	-1.44	-1.49	-1.51	-1.56	-1.67	-1.61	-1.55	-1.54	-1.52	-1.44	-1.26	-1.29	-1.17	-1.08	-0.99
PIPE INVERT																	21.33	21.38			
PIPE / GRADE															3	,000 x 1	1,500 mr 27.29m	n Conc I @ 0.19	Box Culv %	rert	
CHAINAGE	00:00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00

PROPOSED - SWALE 5 CH 0+00.00 TO CH 4+00.00 SCALE: 1:2500 H / 1:500 V

	E		7												<u> </u>			4		=
DATUM 18.00m								•												
EXISTING LEVELS	22.50	23.57	23.06	23.03	23.23	23.31	23.40	23.43	23.53	23.62	23.73	23.77	23.81	23.85	23.89	23.93	23.97	24.03	24.14	
DESIGN LEVELS	21.50	21.54	21.58	21.62	21.66	21.70	21.74	21.78	21.82	21.86	21.90	21.94	21.98	22.02	22.06	25.00	23.84	22.18	22.22	22.24
LEVEL DIFFERENCE CUT-/FILL+	-0.99	-2.03	-1.47	-1.40	-1.56	-1.61	-1.66	-1.65	-1.71	-1.76	-1.83	-1.83	-1.83	-1.83	-1.83	1.07	-0.13	-1.85	-1.92	
PIPE INVERT						21.68	21.73									22.06	22.14			
PIPE / GRADE				2,50			Conc Bo 0.19%	x Culver	t					2,0		00 mm ( 0.23m @			rt	
CHAINAGE	400.00	420.00	440.00	460.00	480.00	500.00	520.00	540.00	260.00	580.00	00.009	620.00	640.00	00.099	680.00	700.00	720.00	740.00	760.00	772.78

PROPOSED - SWALE 5 CH 4+00.00 TO CH 7+72.78 SCALE: 1:2500 H / 1:500 V

## RESOURCE CONSENT

NOTES

LEGEND:

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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% WEAK CONCRETE BEDDING (TMPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
- BLOCKS AT 6M CRS).

  5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING
  OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
  TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

	[	PR FINI 1% AEF	SHED (	SURFACE GROUND D LEVEL CROSSIN	SURFACE (MPD)
В	SUB	MISSION RESPONSE		JP	10/2025
A	RES	OURCE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	y	SURVEYWORX	02/202	21	
Desigr	1	YW	11/202	24	
Drawn		OQ	11/20	24	
Check	ed	JP/LC	02/20:	 25	



SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Project no.	215010		
Scale	1:2500 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4513	Rev	В

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			- +												4						7						
DATUM 18.00m																											
EXISTING LEVELS	21.91	21.96	22.12	22.11	22.23	22.26	22.37	22.43	22.48	22.66	23.04	22.83	l N	22.91	22.97	23.09	23.05	23.10	23.05	23.94	23.35	23.32	23.51	23.70	23.35	23.73	23.84
DESIGN LEVELS	20.73	20.84	20.95	21.07	21.18	21.29	21.41	21.52	21.64	21.75	21.86	21.98	4.	24.50	22.32	22.43	22.54	22.66	22.77	22.88	23.00	23.11	23.22	23.34	23.45	23.57	23.68
LEVEL DIFFERENCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUT-/FILL+		J											0		J		J		J								
PIPE INVERT													21.98	22 23													
PIPE / GRADE											2		900 mm 41.83m			rt											
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00	520.00 531.53

PROPOSED - SWALE 6 CH 0+00.00 TO CH 5+31.53 SCALE: 1:2500 H / 1:500 V

															. —		_ ¬				
	-		_		-	_			_												
DATUM 18.00m																					
EXISTING LEVELS	22.46	22.53	22.61	22.73	22.79	22.80	23.11	23.18	23.30	23.44	23.60	23.68	23.92	24.17	24.50	24.95	25.37	25.43	25.57	25.65	25.68
DESIGN LEVELS	21.89	21.99	22.09	22.19	22.29	22.39	22.49	22.59	22.69	22.79	22.89	22.99	23.09	23.19	23.29	23.39	23.49	23.59	23.69	23.79	24.72
LEVEL DIFFERENCE CUT-/FILL+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPE INVERT			•	•		·						•									
PIPE / GRADE																					
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	120.00	140.00	160.00	180.00	200.002	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	380.00	400.00

PROPOSED - SWALE 7 CH 0+00.00 TO CH 4+00.01 SCALE: 1:2500 H / 1:500 V

										_					+ ~		
DATUM 22.00m																	
EXISTING LEVELS	28.06	27.97	27.91	27.80	27.53	27.59	27.56	26.85	27.17	27.01	26.79	26.55	26.41	26.23	25.92	25.76	25.42
DESIGN LEVELS	26.32	26.34	26.36	26.38	26.40	26.42	26.44	26.46	26.49	26.50	26.52	26.54	26.56		26.60	26.62	27.50
LEVEL DIFFERENCE CUT-/FILL+	-1.74	-1.63	-1.55	-1.42	-1.13	-1.16	-1.11	-0.39	-0.69	-0.51	-0.26	-0.01	0.15	0.36	69.0	0.87	2.08
PIPE INVERT		25.08	25.16	•	•												
PIPE / GRADE		-						x 1,000 m @ 0.	) mm Co 28%	onc Box	Culvert						
CHAINAGE	0.00	20.00	40.00	90.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	311.60

PROPOSED - SWALE 8 CH 0+00.00 TO CH 3+11.60 SCALE: 1:2500 H / 1:500 V

RESOURCE CONSENT

NOTES

LEGEND:

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (NZVD) 2016.
- 3. 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
- BLOCKS AT 6M CRS).

  5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING
  OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
  TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

	[	PR FINI 1% AEF	SHED (	GROUND D LEVEL CROSSIN	SURFACE (MPD)		
В	SUB	MISSION RESPONSE		JP	10/2025		
A	RES	OURCE CONSENT		OQ	02/2025		
Rev	Desc	ription		Ву	Date		
		Ву	Date				
Surve	y	SURVEYWORX	02/202	21			
Desig	ı	YW	11/202	24			
Drawn	1	OQ	11/2024				
Check	ed	JP/LC	02/20	 25			



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTERPLANNING

FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Project no.	215010		
Scale	1:2500 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4514	Rev	В

	ŀ	=			<u> </u>													\ \		<u> </u>
DATUM 20.00m																				
EXISTING LEVELS	24.84	24.95	25.29	25.58	25.80	26.18	26.48	26.70	26.89	27.21	27.49	27.67	27.89	28.07	28.20	28.39	28.54	28.27	28.25	28.32
DESIGN LEVELS	23.89	24.09	24.28	24.48	24.67	24.87	25.06	25.25	25.45	25.64	25.92	29.71	29.53	26.66	26.95	27.35	27.76	28.17	28.59	
LEVEL DIFFERENCE CUT-/FILL+	-0.94	-0.86	-1.00	-1.10	-1.13	-1.31	-1.42	-1.44	-1.44	-1.56	-1.57	2.04	1.65	-1.41	-1.25	-1.04	-0.77	-0.10	0.34	
PIPE INVERT												24.88		25.07						
PIPE / GRADE											3,500		mm Cor Sm @ 0.	nc Box C	ulvert					
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	320.00	340.00	360.00	372.92

### PROPOSED - SWALE 9 CH 0+00.00 TO CH 3+72.92 SCALE: 1:2500 H / 1:500 V

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	P	<b>\</b> 7	]				/	~	^	_							
DATUM 20.00m																	
EXISTING LEVELS	24.35	25.19	25.64	26.25	26.51	26.68	25.73	25.60	25.64	25.75	25.95	26.07	26.06	26.16	26.46	26.57	26.57
DESIGN LEVELS	25.75	23.63	23.76	23.88	24.00	24.12	24.25	24.37	24.49	24.62	24.74	24.86	24.98	25.11	25.23	25.35	28.99
LEVEL DIFFERENCE CUT-/FILL+	1.40	-1.56	-1.88	-2.37	-2.51	-2.56	-1.49	-1.23	-1.14	-1.13	-1.21	-1.20	-1.07	-1.06	-1.23		2.41
PIPE INVERT																	
PIPE / GRADE																	
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	300.00	315.00

PROPOSED - SWALE 10 CH 0+00.00 TO CH 3+15.00 SCALE: 1:2500 H / 1:500 V

DATUM 20.00m							
EXISTING LEVELS	24.38	24.37	24.20	24.09	23.93	24.07	24.19
DESIGN LEVELS E	23.72	23.74	23.76	23.78	23.80	23.82	24.53
LEVEL DIFFERENCE CUT-/FILL+	99.0-	-0.63	-0.44	-0.31	-0.13	-0.25	0.35
PIPE INVERT							
PIPE / GRADE							
CHAINAGE S	20.00	40.00	00:09	80.00	100.00	120.00	129.50

PROPOSED - SWALE 11 CH 0+00.00 TO CH 1+29.50 SCALE: 1:2500 H / 1:500 V

# **RESOURCE CONSENT**

NOTES
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- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN
  COUNCIL STANDARDS
- COUNCIL STANDARDS.

  COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- ZEALAND VERTICAL DATUM (NZVD) 2016.

  3. 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% WEAK CONCRETE BEDDING (TMPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
- BLOCKS AT 6M CRS).

  5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING
  OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
  TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEG	END:					
	[	PR FINI 1% AEF	SHED FLOO	SURFACE GROUND D LEVEL CROSSII	SURFACE (MPD)	
В	SUB	MISSION RESPONSE		JP	10/2025	
Α	RES	OURCE CONSENT		OQ	02/2025	
Rev	Desc	ription		Ву	Date	
		Ву	Date	•		
Surve	у	SURVEYWORX	02/20:	21		
Desig	ı	YW	11/20	24		
Drawr	1	OQ	11/2024			
Check	ed	JP/LC	02/20	25		



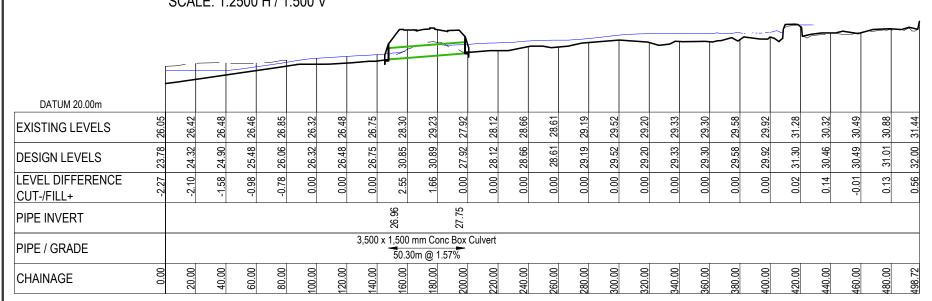
SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Drawing no.	M-C4515	Rev	В
Cad file	215010-M-C450.DWG		
Scale	1:2500 @ A3		
Project no.	215010		

DATUM 24.00m	Γ						
EXISTING LEVELS	26.26	26.45	26.54	26.73	26.80	26.98	26.99
DESIGN LEVELS	26.15	26.49	26.98	27.09	27.16	27.22	27.26
LEVEL DIFFERENCE CUT-/FILL+	-0.11	0.05	0.44	0.36	0.36	0.24	0.26
PIPE INVERT							
PIPE / GRADE							
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	108.93

PROPOSED - SWALE 12 CH 0+00.00 TO CH 1+08.93 SCALE: 1:2500 H / 1:500 V



PROPOSED - SWALE 13 (INC EX. CHANNEL) CH 0+00.00 TO CH 4+98.72 SCALE: 1:2500 H / 1:500 V

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								ľ								
DATUM 20.00m																
EXISTING LEVELS	25.18	25.00	24.88	24.89	24.78	24.73	24.76	24.75	24.84	24.89	25.17	25.22	25.14	25.21	25.32	25.39
DESIGN LEVELS	22.77	22.79	22.85	22.91	25.13	25.75	25.86	23.15	23.21	23.27	23.33	23.40	23.44	23.44	23.44	23.44
LEVEL DIFFERENCE CUT-/FILL+	0.00	00.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00:00	00:00	0.00
PIPE INVERT					20 00	10:77		23.04								
PIPE / GRADE					2,500 <u>x</u>		nm Con m @ 0.3		ulvert							
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00	240.00	260.00	280.00	293.67

PROPOSED - SWALE 14 CH 0+00.00 TO CH 2+93.67 SCALE: 1:2500 H / 1:500 V

**RESOURCE CONSENT** 

OIES
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- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COUNCIL STANDARDS.

  COORDINATES IN TERMS OF NZ GEODETIC DATUM
  MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- ZEALAND VERTICAL DATUM (NZVD) 2016.

  3. 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).
   APPROVED HARDFILL IS TO BE USED IN BACKFILLING.
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

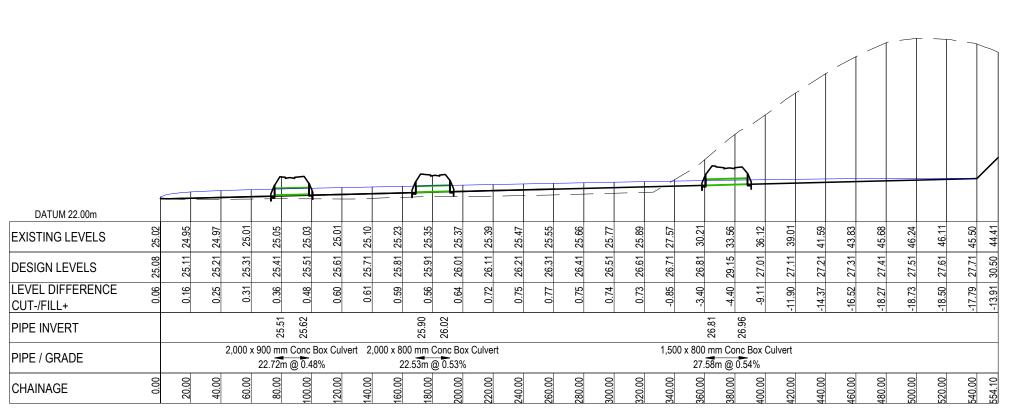
LEG	END:								
PR FINISHED GROUND SURFACE PR FINISHED GROUND SURFA 1% AEP FLOOD LEVEL (MPD) SW CULVERT CROSSING									
В	SUB	MISSION RESPONSE		JP	10/2025				
Α	RES	OURCE CONSENT		OQ	02/2025				
Rev	Desc	ription		Ву	Date				
		Ву	Date						
Surve	у	SURVEYWORX	02/20	21					
Desig	n	YW	11/20	24					
Drawr	1	OQ	11/2024						
Check	hecked JP/LC 02/2025								



SUNFIELD DEVELOPMENT
MASTERPLANNING
ARDMORE, AUCKLAND
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Project no.	215010		
Scale	1:2500 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4516	Rev	В



PROPOSED - SWALE 15 CH 0+00.00 TO CH 5+54.10 SCALE: 1:2500 H / 1:500 V

				\				<b>\</b>				_
DATUM 22.00m				4		-		•	_			
EXISTING LEVELS	25.08	25.05	25.06	25.06	25.02	25.11	24.72	24.81	24.89	24.95	24.97	24.72
DESIGN LEVELS	24.65	24.75	24.85	24.95	25.05	27.47	25.25	25.35	25.45	25.55	25.65	
LEVEL DIFFERENCE CUT-/FILL+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PIPE INVERT			24.76	74.01		25.12	25.25					
PIPE / GRADE	1,50		mm Cor 7m @ (		cull,5600 x	_	m Conc m @ 0.5	Box Cul	vert			
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	213.64

PROPOSED - SWALE 16 CH 0+00.00 TO CH 2+13.64 SCALE: 1:2500 H / 1:500 V

RESOURCE CONSENT

#### NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COUNCIL STANDARDS.

  COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- ZEALAND VERTICAL DATUM (NZVD) 2016.

  3. 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
- APPROVED HARDFILL IS TO BE USED IN BACKFILLING
   OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
   TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:	
	—— EX GROUND SURFACE
	PR FINISHED GROUND SURFACE  1% AEP FLOOD LEVEL (MPD)  SW CULVERT CROSSING

	В	SUB	MISSION RESPONSE		JP	10/2025	
	Α	RES	OURCE CONSENT		OQ	02/2025	
	Rev	Desc	ription		Ву	Date	
			Ву	Date	•		
	Surve	y	SURVEYWORX	02/202	21		
	Design YW Drawn OQ		11/202	2024			
			11/20	24			
	Check	ed	JP/LC	02/20:	25		



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTERPLANNING

FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

Drawing no.	M-C4517	Rev	В
Cad file	215010-M-C450.DWG		
Scale	1:2500 @ A3		
Project no.	215010		

	6	-						
DATUM 22.00m						•		
EXISTING LEVELS	25.10	25.07	25.04	25.01	25.09	24.72		
DESIGN LEVELS	24.70	24.80	24.90	25.00	25.10	27.00		
LEVEL DIFFERENCE CUT-/FILL+	-0.40	-0.27	-0.14	-0.01	0.01	2.28		
PIPE INVERT						5.16 <u> </u>		
PIPE / GRADE				1,50			onc Box Cu 0.52%	lvert
CHAINAGE	0.00	20.00	40.00	00.09	80.00	97.03		

PROPOSED - SWALE 17 CH 0+00.00 TO CH 0+97.03 SCALE: 1:2500 H / 1:500 V

							<b>\</b>	<b>\</b>				_1
DATUM 22.00m	Ī					۲		7				
EXISTING LEVELS	25.06	25.08	25.13	25.10	25.12	25.15	25.15	25.15	25.18	25.21	25.30	
DESIGN LEVELS	24.71	24.81	24.91	25.01	25.11	27.57	26.81	25.41	25.51	25.61	25.71	26.50
LEVEL DIFFERENCE CUT-/FILL+	-0.36	-0.27	-0.22	-0.10	-0.01	2.42	1.66	0.26	0.32	0.39	0.41	
PIPE INVERT						25.17	25.31					
PIPE / GRADE					1,500		m Conc m @ 0.5		lvert			
CHAINAGE	0.00	20.00	40.00	00.09	80.00	100.00	120.00	140.00	160.00	180.00	200.00	208.08

PROPOSED - SWALE 18 CH 0+00.00 TO CH 2+08.08 SCALE: 1:2500 H / 1:500 V NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).
- BLOCKS AT 6M CRS).

  5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING
  OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
  TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:	
	EX GROUND SURFACE  PR FINISHED GROUND SURFACE
	1% AEP FLOOD LEVEL (MPD) SW CULVERT CROSSING

В	SUB	MISSION RESPONSE		JP	10/2025
Α	RES	OURCE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/202	21	
Desigr	ı	YW	11/202	24	
Drawn		OQ	11/202	24	
Check	ed	JP/LC	02/202	25	



Project

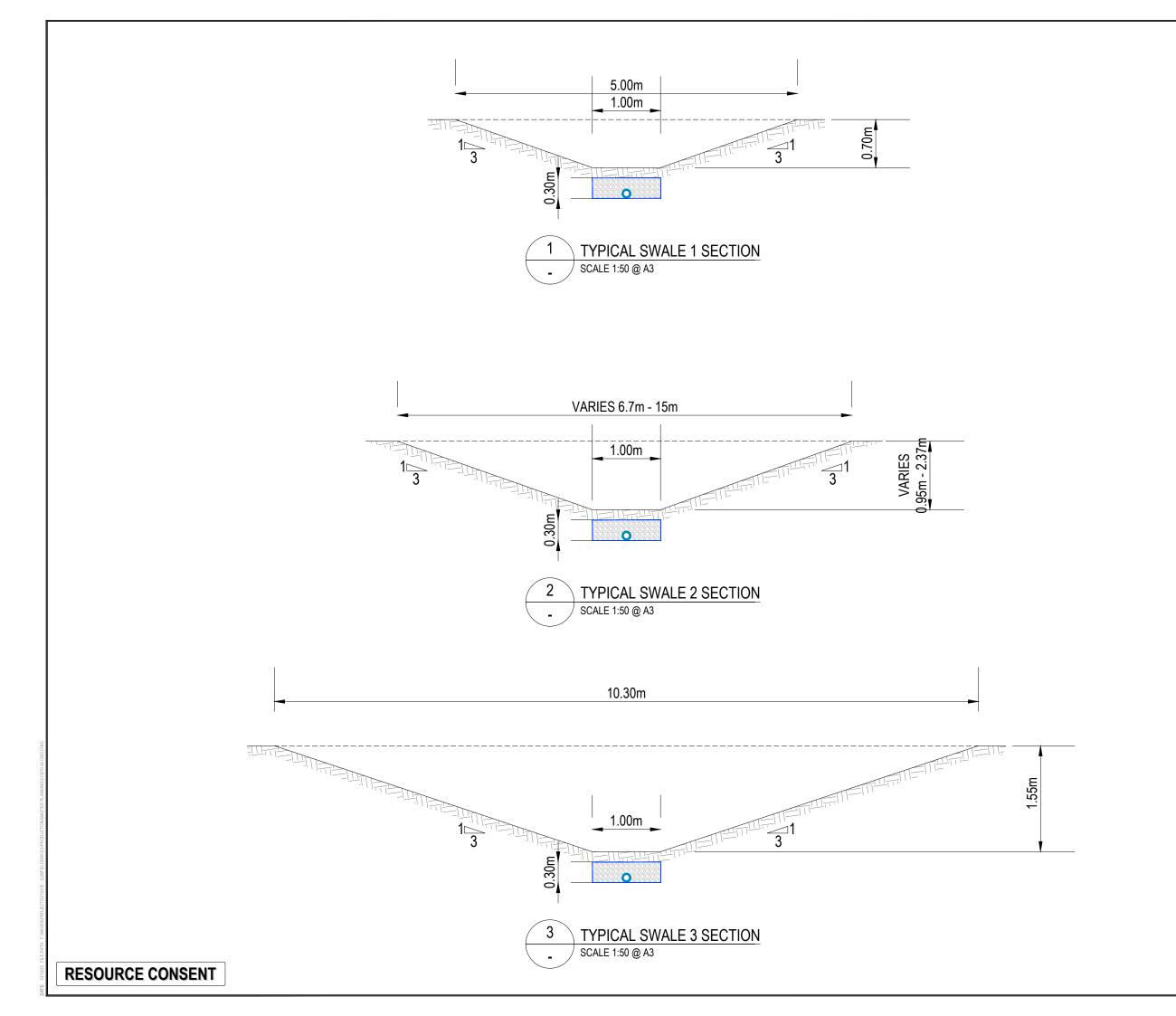
SUNFIELD DEVELOPMENT
MASTERPLANNING
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

PROPOSED SWALES/
DIVERSION PATH LONGSECTIONS - SHEET 9

Project no.	215010									
Scale	1:2500 @ A3	1:2500 @ A3								
Cad file	215010-M-C450.DWG									
Drawing no.	M-C4518	Rev	В							

RESOURCE CONSENT



- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW

ZEALAND VERTICAL DATUM (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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).

  APPROVED HARDFILL IS TO BE USED IN BACKFILLIN
- OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- . HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

#### LEGEND:

GEOTEXTILE PERMEABLE LINER 110mm Ø PERFORATED PIPE GRAVEL BEDDING

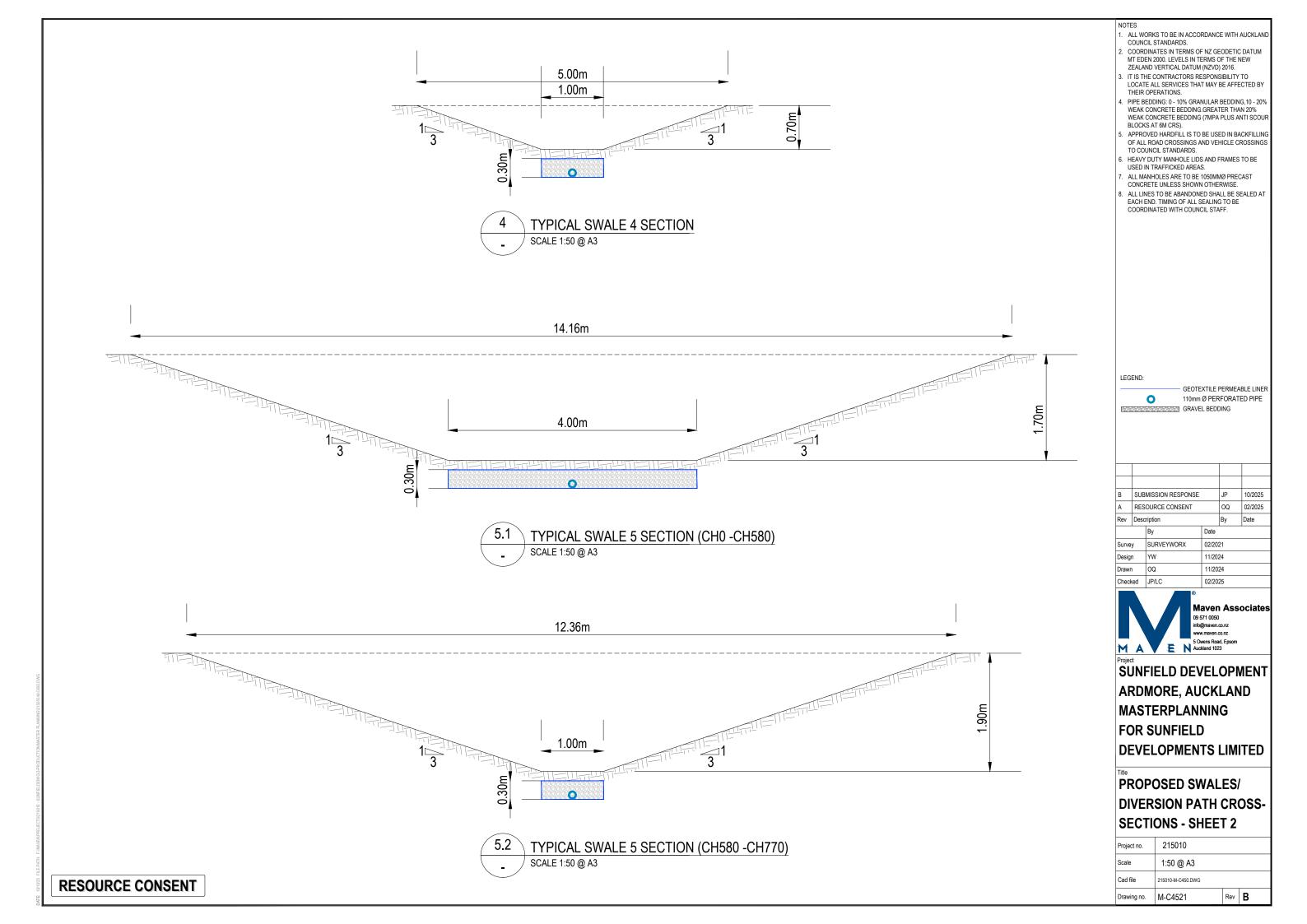
SUBMISSION RESPONSE 10/2025 RESOURCE CONSENT OQ 02/2025 Date 02/2021

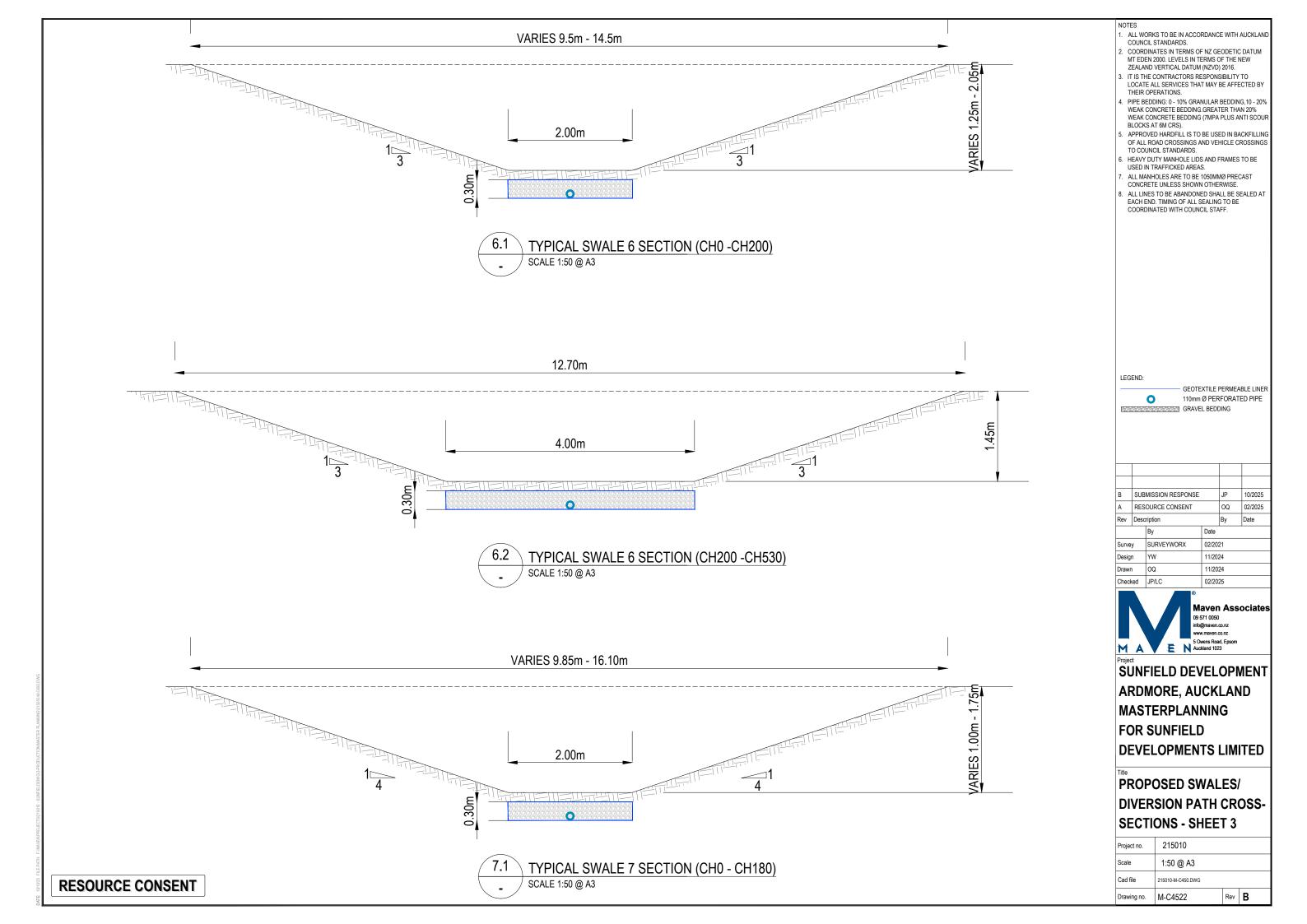
Survey SURVEYWORX 11/2024 11/2024 Drawn OQ Checked JP/LC 02/2025

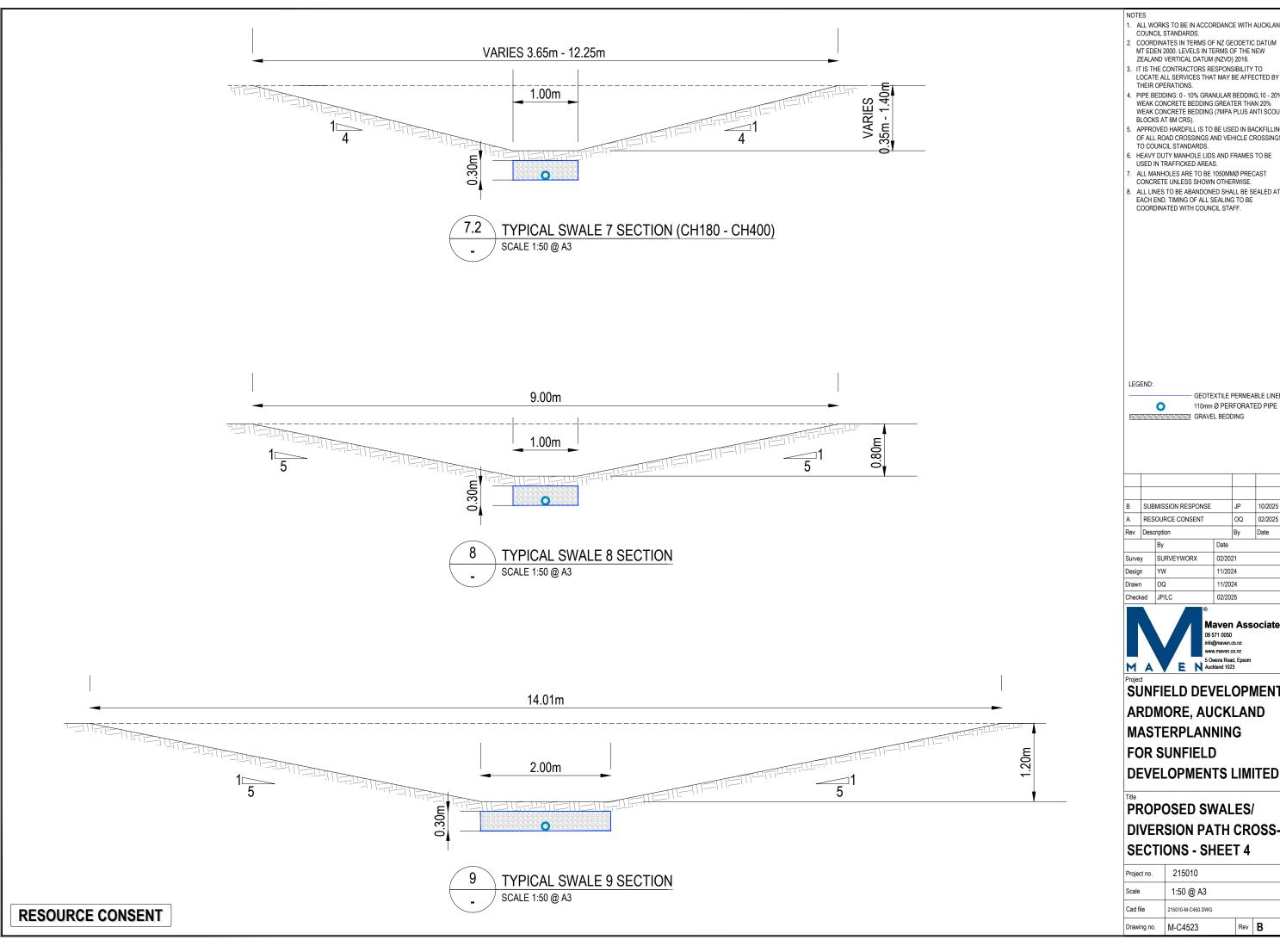


SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED** 

Project no.	215010								
Scale	1:50 @ A3	1:50 @ A3							
Cad file	215010-M-C450.DWG								
Drawing no.	M-C4520	Rev	В						







- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- . IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY
- PIPE BEDDING: 0 10% GRANULAR BEDDING, 10 20% WEAK CONCRETE BEDDING GREATER THAN 20% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF
- OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS
- . HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE
- . ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

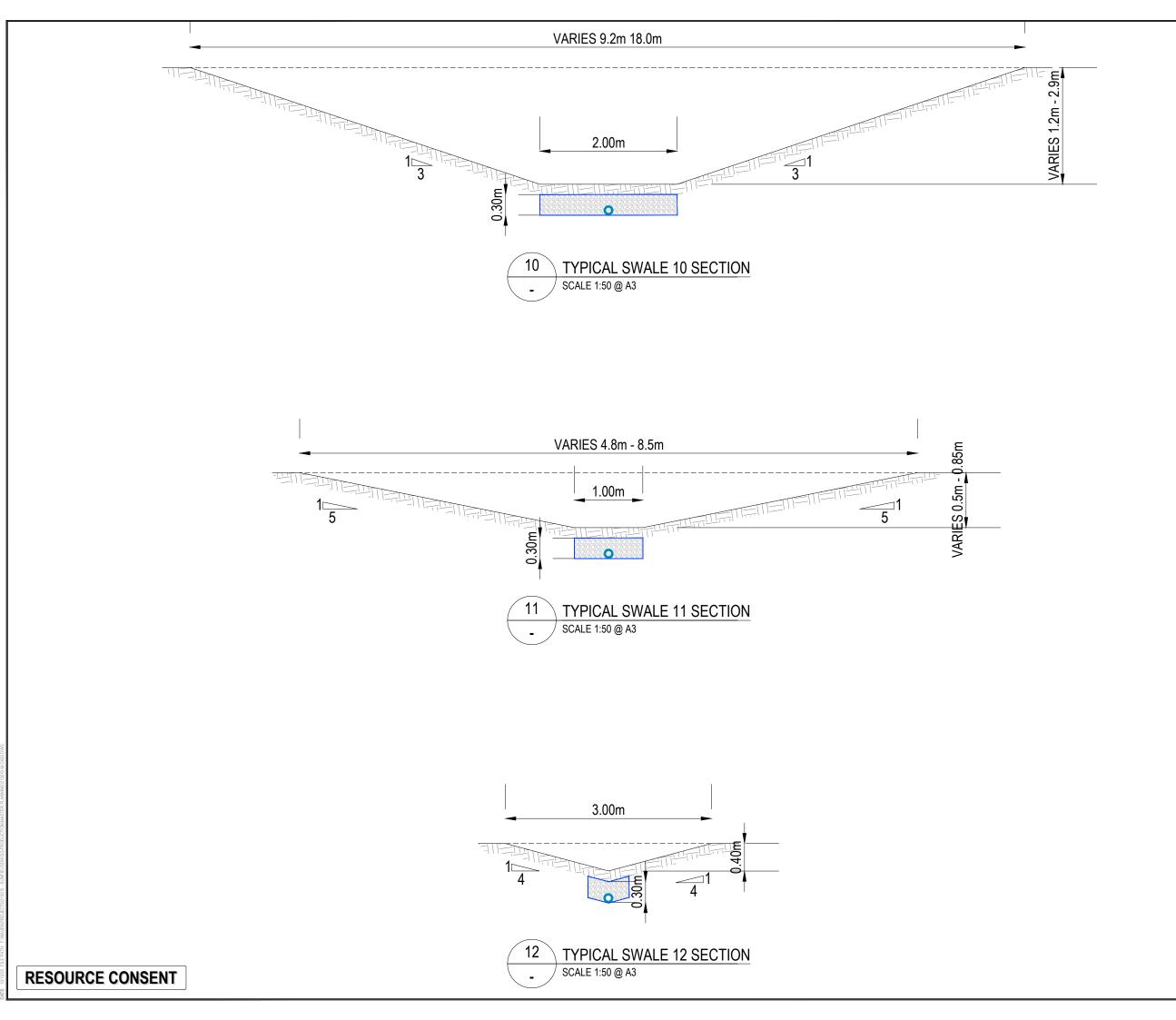
GEOTEXTILE PERMEABLE LINER 110mm Ø PERFORATED PIPE

B SUBMISSION RESPONSE				JP	10/2025	
Α	A RESOURCE CONSENT			OQ	02/2025	
Rev	Rev Description			Ву	Date	
		Ву	Date	21		
Surve	y	SURVEYWORX	02/20:			
Design Drawn		YW	11/2024			
		OQ	11/20	24		
Chec	ked	JP/LC	02/20	25		



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED** 

Project no.	215010		
Scale	1:50 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4523	Rev	В



- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLA
- COUNCIL STANDARDS.
  COORDINATES IN TERMS OF NZ GEODETIC DATUM
  MT EDEN 2000. LEVELS IN TERMS OF THE NEW ZEALAND VERTICAL DATUM (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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).

  APPROVED HARDFILL IS TO BE USED IN BACKFILLIN
- OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE
- . ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

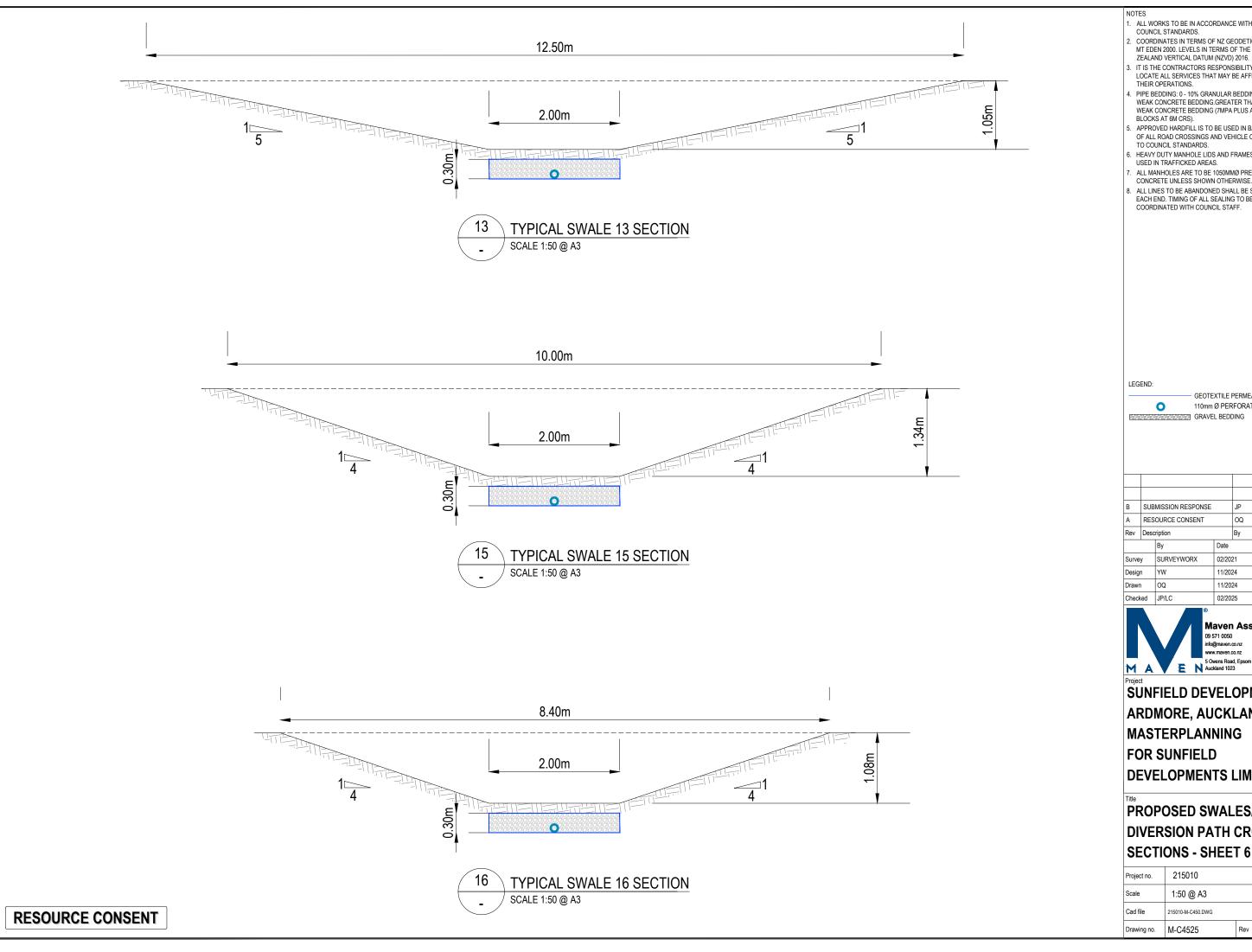
GEOTEXTILE PERMEABLE LINER 110mm Ø PERFORATED PIPE GRAVEL BEDDING

В	SUB	MISSION RESPONSE		JP	10/2025	
Α	RES	OURCE CONSENT		OQ	02/2025	
Rev	Desc	ription		Ву	Date	
		Ву	Date			
Surve	y	SURVEYWORX	02/20	21	1	
Design Drawn Checked		YW	11/20	24	4	
		OQ	11/20	24		
		JP/LC	02/20	25		



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED** 

Project no.	215010		
Scale	1:50 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4524	Rev	В



- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- . 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).

  APPROVED HARDFILL IS TO BE USED IN BACKFILLIN
- OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE
- . ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

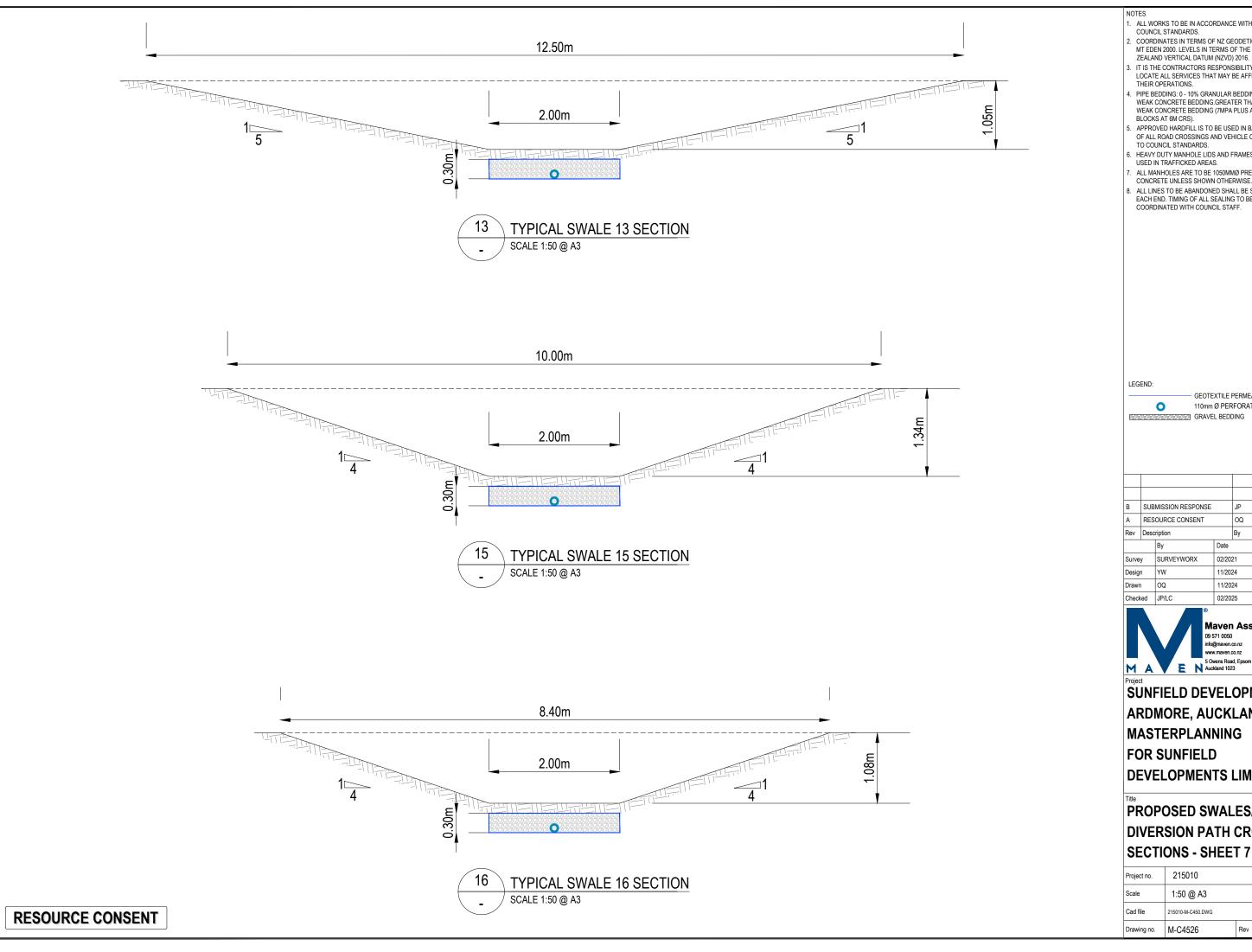
GEOTEXTILE PERMEABLE LINER 110mm Ø PERFORATED PIPE GRAVEL BEDDING

В	SUB	MISSION RESPONSE		JP	10/2025
Α	RES	OURCE CONSENT		OQ	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/20	21	
Desig	n	YW	11/20	24	
Drawn	1	OQ	11/20	24	
Check	ced	JP/LC	02/20	25	



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED** 

Project no.	215010		
Scale	1:50 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4525	Rev	В



- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- . COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- . 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% WEAK CONCRETE BEDDING (7MPA PLUS ANTI SCOUF BLOCKS AT 6M CRS).

  APPROVED HARDFILL IS TO BE USED IN BACKFILLIN
- OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE
- . ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

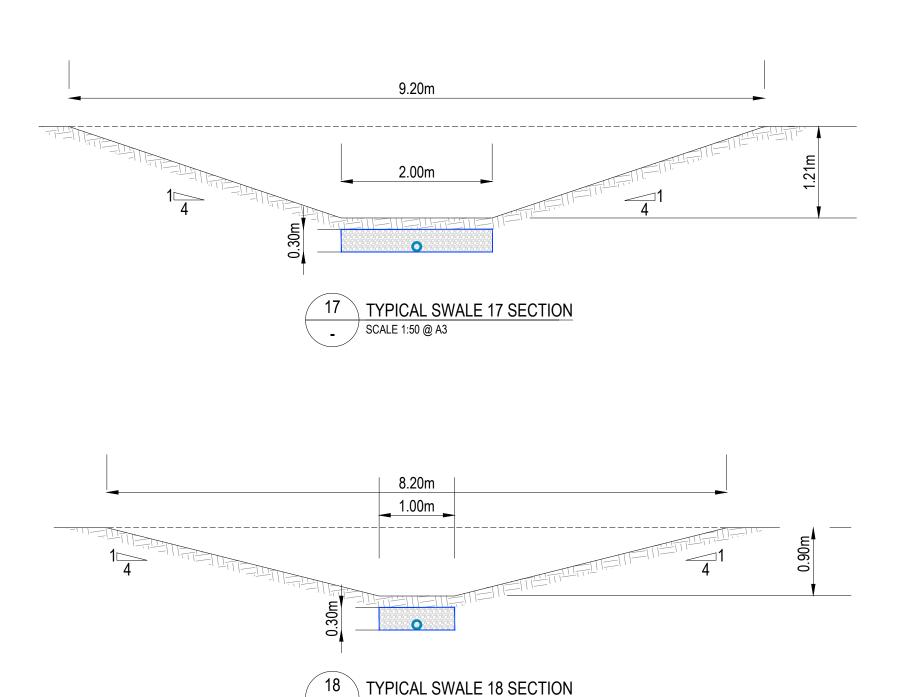
GEOTEXTILE PERMEABLE LINER 110mm Ø PERFORATED PIPE GRAVEL BEDDING

B SUBI		MISSION RESPONSE		JP	10/2025
Α	A RESOURCE CONSENT			OQ	02/2025
Rev	Rev Description			Ву	Date
,		Ву	Date		
Survey		SURVEYWORX	02/20	21	
Design		YW	11/2024		
Drawn		OQ	11/20	24	
Checked		JP/I C	02/20	25	



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND **MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED** 

Project no.	215010		
Scale	1:50 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4526	Rev	В



SCALE 1:50 @ A3

NOTES

- ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAN COUNCIL STANDARDS.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM
   MT EDEN 2000. LEVELS IN TERMS OF THE NEW
- ZEALAND VERTICAL DATUM (NZVD) 2016.

  3. 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 (7MPA PLUS ANTI SCOUR BLOCKS AT 6M CRS).

  5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING
- 5. APPROVED HARDFILL IS TO BE USED IN BACKFILLING OF ALL ROAD CROSSINGS AND VEHICLE CROSSINGS TO COUNCIL STANDARDS.
- 6. HEAVY DUTY MANHOLE LIDS AND FRAMES TO BE USED IN TRAFFICKED AREAS.
- 7. ALL MANHOLES ARE TO BE 1050MMØ PRECAST CONCRETE UNLESS SHOWN OTHERWISE.
- ALL LINES TO BE ABANDONED SHALL BE SEALED AT EACH END. TIMING OF ALL SEALING TO BE COORDINATED WITH COUNCIL STAFF.

LEGEND:

110mm Ø PERFORA GRAVEL BEDDING

GEOTEXTILE PERMEABLE LINER
110mm Ø PERFORATED PIPE

B	SUBMISSION RESPONSE	JP	10/2025
A	RESOURCE CONSENT	OQ	02/2025
Rev	Description	By	Date
By	Date		
Survey	SURVEYWORX	02/2021	
Design	YW	11/2024	
Drawn	OQ	11/2024	



SUNFIELD DEVELOPMENT

ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

PROPOSED SWALES/ DIVERSION PATH CROSS-SECTIONS - SHEET 8

Project no.	215010		
Scale	1:50 @ A3		
Cad file	215010-M-C450.DWG		
Drawing no.	M-C4527	Rev	В

RESOURCE CONSENT

