

- ALL WORKS AND MATERIALS TO COMPLY WITH
   WATERCARE SERVICES LIMITED CODE OF PRACTICE
- ALL PRIVATE DRAINAGE WORKS TO COMPLY WITH
  THE NEW ZEALAND BUILDING CODE.
- ALL DRAINAGE WORKS SHALL BE CARRIED OUT UNDER THE SUPERVISION OF A REGISTERED DRAIN LAYER AND IN ACCORDANCE WITH CURRENT HEALTI AND SAFETY PRACTICES. WHERE REQUIRED, DRAINAGE WORKS ARE TO BE UNDERTAKEN BY AN APPROVED LICENSED CONTRACTOR (A.L.C.)
- ALL ORDINARY TRENCH BACKFILL SHALL CÓMPRISE SUITABLE EARTHFILL FREE OF TOPSOIL/ORGANICS AND SHALL BE WELL COMPACTED IN LAYERS NOT EXCEEDING 200mm TO ACHIEVE MINIMUM SHEAR STRENGTHS OF 100 kPa / MAX. 10% AIR VOIDS OR AS PER THE EARTHWORKS SPECIFICATION.
- ALL PIPE CROSSINGS UNDER CARRIAGEWAYS/
  TRAFFIC AREAS TO BE HARDFILL BACKFILLED WITH
  APPROVED GAP65 TO 1.0m BEYOND EXTENT
  CARRIAGEWAY. TRENCH HARDFILL BACKFILL TO BE
  WELL COMPACTED TO ACHIEVE MIN. CLEGG HAMMER
  CIV = 25.
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000. LEVELS IN TERMS OF THE 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).
- 9. 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 CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.

В	SUE	BMISSION RESPONSE		RK	10/2025
Α	RES	SOURCE CONSENT		RK	02/2025
Rev	Desc	ription		Ву	Date
		Ву	Date		
Surve	у	SURVEYWORX	02/202	21	
Desig	n	-	11/202	24	
Drawr	ı	-	11/20	24	
Chocked IP/I C		IP/I C	02/20	25	



ect

SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

PROPOSED LPS
WASTEWATER
STANDARD DETAIL

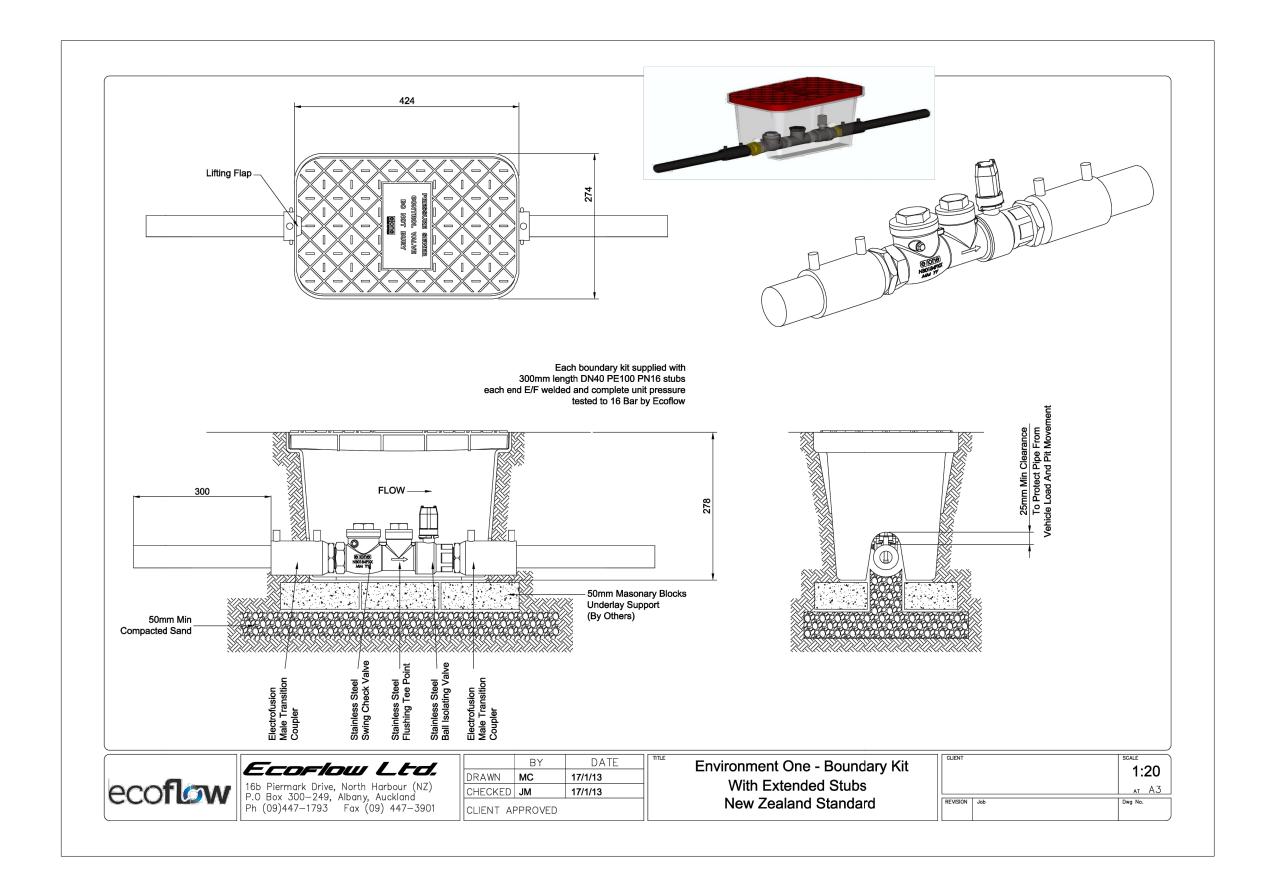
 Project no.
 215010

 Scale
 N.T.S

 Cad file
 215010-M-C540.DWG

 Drawing no.
 M-C540

 Rev
 B



- ALL WORKS AND MATERIALS TO COMPLY WITH
   WATERCARE SERVICES LIMITED CODE OF PRACTICE
   ALL PRIVATE DRAINAGE WORKS TO COMPLY WITH
- 2. ALL PRIVATE DRAINAGE WORKS TO COMPLY WITH THE NEW ZEALAND BUILDING CODE.
  3. ALL DRAINAGE WORKS SHALL BE CARRIED OUT
- ALL DRAINAGE WORKS SHALL BE CARRIED OUT
  UNDER THE SUPERVISION OF A REGISTERED DRAIN
  LAYER AND IN ACCORDANCE WITH CURRENT HEALTI
  AND SAFETY PRACTICES. WHERE REQUIRED,
  DRAINAGE WORKS ARE TO BE UNDERTAKEN BY AN
  APPROVED LICENSED CONTRACTOR (A.L.C.)
  4. ALL ORDINARY TRENCH BACKFILL SHALL COMPRISE
- 4. ALL ORDINARY TRENCH BACKFILL SHALL COMPRISE SUITABLE EARTHFILL FREE OF TOPSOIL/ORGANICS AND SHALL BE WELL COMPACTED IN LAYERS NOT EXCEEDING 200mm TO ACHIEVE MINIMUM SHEAR STRENGTHS OF 100 kPa / MAX. 10% AIR VOIDS OR AS PER THE EARTHWORKS SPECIFICATION.
- 5. ALL PIPE CROSSINGS UNDER CARRIAGEWAYS/
  TRAFFIC AREAS TO BE HARDFILL BACKFILLED WITH
  APPROVED GAP65 TO 1.0m BEYOND EXTENT
  CARRIAGEWAY. TRENCH HARDFILL BACKFILL TO BE
  WELL COMPACTED TO ACHIEVE MIN. CLEGG HAMME
  CIV = 25.
  6. COORDINATES IN TERMS OF NZ GEODETIC DATUM M
- COORDINATES IN TERMS OF NZ GEODETIC DATUM MEDEN 2000. LEVELS IN TERMS OF THE NZVD 2016
   IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATI 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).
- 9. 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 CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.

В	SUE	BMISSION RESPONSE		RK	10/2025	
Α	RES	SOURCE CONSENT		RK	02/2025	
Rev	Description			Ву	Date	
		Ву	Date			
Survey		SURVEYWORX	02/202	12/2021		
Design		-	11/2024			
Drawn		-	11/2024			
Checked		JP/LC	02/20:	25		



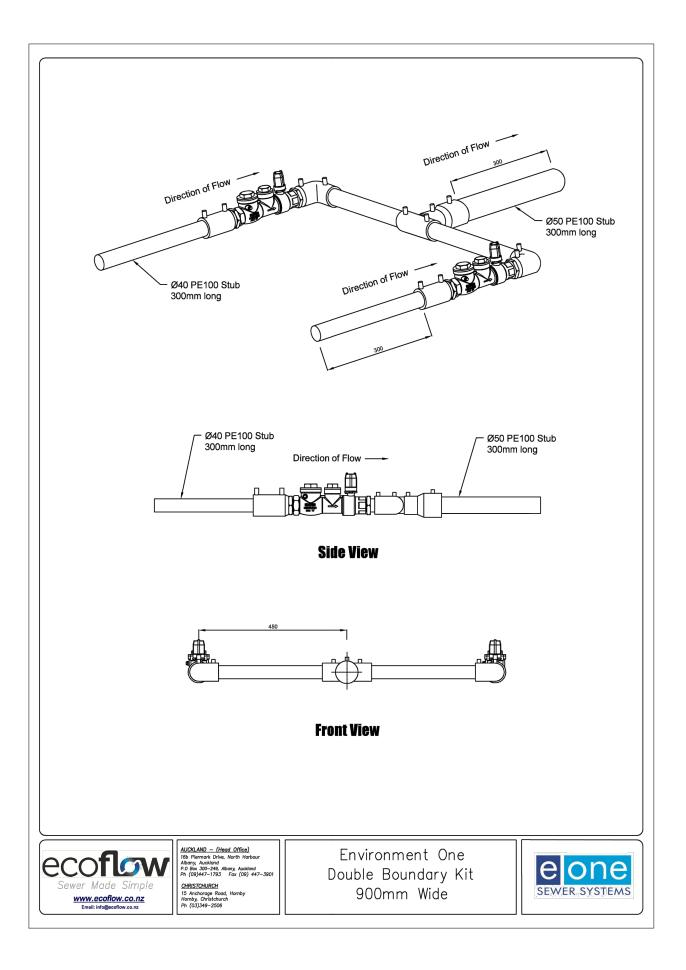
Project

SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

## PROPOSED LPS WASTEWATER STANDARD DETAIL

Drawing no.	M-C542	Rev	В
Cad file	215010-M-C540.DWG		
Scale	N.T.S		
Project no.	215010		



- ALL WORKS AND MATERIALS TO COMPLY WITH
   WATERCARE SERVICES LIMITED CODE OF PRACTICE

  ALL DRIVATE DRANACE WORKS TO COMPLY WITH
- 2. ALL PRIVATE DRAINAGE WORKS TO COMPLY WITH
- THE NEW ZEALAND BUILDING CODE.

  3. ALL DRAINAGE WORKS SHALL BE CARRIED OUT UNDER THE SUPERVISION OF A REGISTERED DRAIN LAYER AND IN ACCORDANCE WITH CURRENT HEALT! AND SAFETY PRACTICES. WHERE REQUIRED, DRAINAGE WORKS ARE TO BE UNDERTAKEN BY AN APPROVED LICENSED CONTRACTOR (A.L.C.)

  4. ALL ORDINARY TRENCH BACKFILL SHALL COMPRISE
- 4. ALL ORDINARY TRENCH BACKFILL SHALL CÓMPRISE SUITABLE EARTHFILL FREE OF TOPSOIL/ORGANICS AND SHALL BE WELL COMPACTED IN LYERS NOT EXCEEDING 200mm TO ACHIEVE MINIMUM SHEAR STRENGTHS OF 100 kPa / MAX. 10% AIR VOIDS OR AS PER THE EARTHWORKS SPECIFICATION.
- 5. ALL PIPE CROSSINGS UNDER CARRIAGEWAYS/
  TRAFFIC AREAS TO BE HARDFILL BACKFILLED WITH
  APPROVED GAP65 TO 1.0m BEYOND EXTENT
  CARRIAGEWAY. TRENCH HARDFILL BACKFILL TO BE
  WELL COMPACTED TO ACHIEVE MIN. CLEGG HAMMER
  CIV = 25.
  6. COORDINATES IN TERMS OF NZ GEODETIC DATUM M
- COORDINATES IN TERMS OF NZ GEODETIC DATUM M
   EDEN 2000. LEVELS IN TERMS OF THE NZVD 2016
   IT IS THE CONTRACTORS RESPONSIBILITY TO LOCAT
   ALL SERVICES THAT MAY BE AFFECTED BY THEIR
- ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.

  8. 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).
- 9. 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 CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.

В	SUE	BMISSION RESPONSE		RK	10/2025
Α	RES	SOURCE CONSENT		RK	02/2025
Rev	Description			Ву	Date
,		Ву	Date		
Survey		SURVEYWORX	02/2021		
Design		-	11/2024		
Drawn		-	11/2024		
Checked		JP/LC	02/2025		



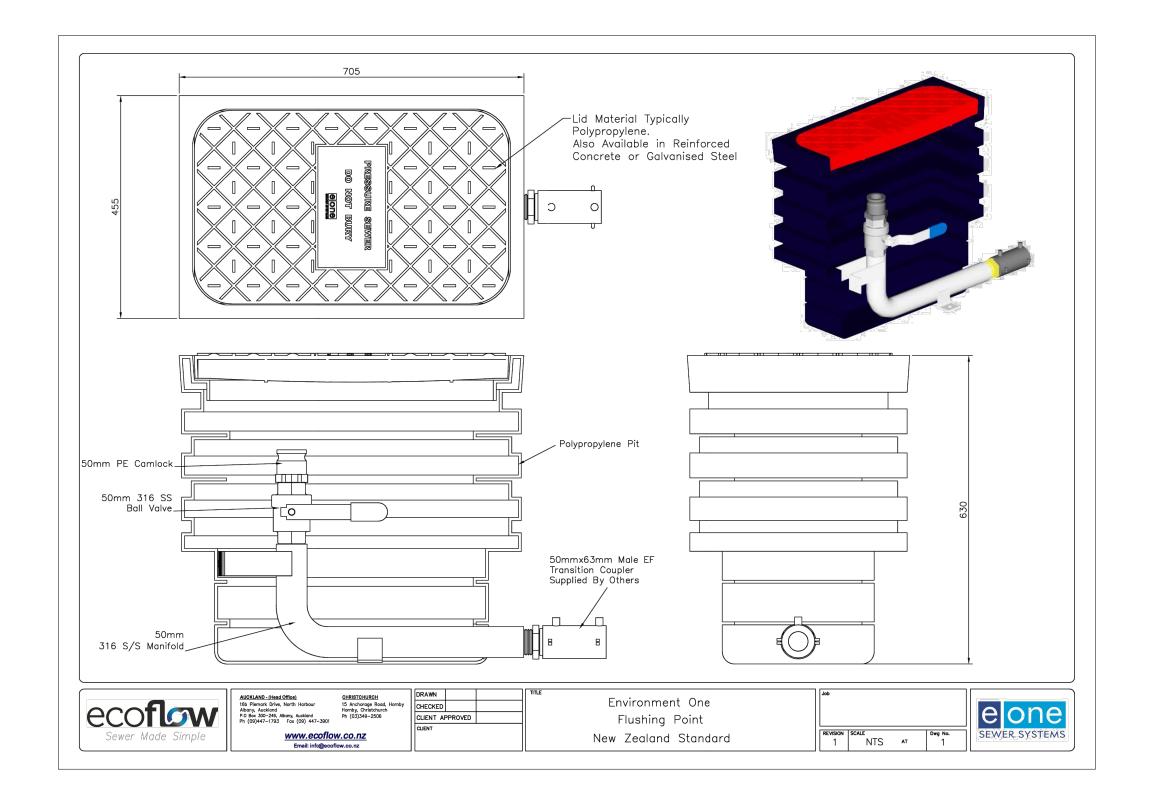
roiect

SUNFIELD DEVELOPMENT
ARDMORE, AUCKLAND
MASTERPLANNING
FOR SUNFIELD
DEVELOPMENTS LIMITED

Title

## PROPOSED LPS WASTEWATER STANDARD DETAIL

Drawing no.	M-C543	Rev	В
Cad file	215010-M-C540.DWG		
Scale	N.T.S		
Project no.	215010		



- ALL WORKS AND MATERIALS TO COMPLY WITH
   WATERCARE SERVICES LIMITED CODE OF PRACTICE
   ALL PRIVATE DRANGE MODICS TO COMPLY WITH
- ALL PRIVATE DRAINAGE WORKS TO COMPLY WITH THE NEW ZEALAND BUILDING CODE.
   ALL DRAINAGE WORKS SHALL BE CARRIED OUT
- ALL DRAINAGE WORKS SHALL BE CARRIED OUT
  UNDER THE SUPERVISION OF A REGISTERED DRAIN
  LAYER AND IN ACCORDANCE WITH CURRENT HEALTI
  AND SAFETY PRACTICES. WHERE REQUIRED,
  DRAINAGE WORKS ARE TO BE UNDERTAKEN BY AN
  APPROVED LICENSED CONTRACTOR (A.L.C.)
  4. ALL ORDINARY TRENCH BACKFILL SHALL COMPRISE
- ALL ORDINARY TRENCH BACKFILL SHALL COMPRISE SUITABLE EARTHFILL FREE OF TOPSOIL/ORGANICS AND SHALL BE WELL COMPACTED IN LAYERS NOT EXCEEDING 200mm TO ACHIEVE MINIMUM SHEAR STRENGTHS OF 100 kPa / MAX. 10% AIR VOIDS OR AS PER THE EARTHWORKS SPECIFICATION.
- ALL PIPE CROSSINGS UNDER CARRIAGEWAYS/
  TRAFFIC AREAS TO BE HARDFILL BACKFILLED WITH
  APPROVED GAP65 TO 1.0m BEYOND EXTENT
  CARRIAGEWAY. TRENCH HARDFILL BACKFILL TO BE
  WELL COMPACTED TO ACHIEVE MIN. CLEGG HAMMER
  CIV = 25.
  COORDINATES IN TERMS OF NZ GEODETIC DATUM MI
- COORDINATES IN TERMS OF NZ GEODETIC DATUM M
   EDEN 2000. LEVELS IN TERMS OF THE NZVD 2016
   IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATI
   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).
- 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 CONNECTION TO 150MM BELOW FINISHED GROUND LEVEL. CONNECTIONS SHALL BE ACCURATELY INDICATED ON "AS BUILT" PLANS.

В	SUBMISSION RESPONSE		RK	10/2025		
Α	RESOURCE CONSENT			RK	02/2025	
Rev	Desc	escription		Ву	Date	
'		Ву	Date	ie		
Survey		SURVEYWORX	02/2021			
Design		-	11/2024			
Drawn		-	11/2024			



SUNFIELD DEVELOPMENT ARDMORE, AUCKLAND MASTERPLANNING FOR SUNFIELD DEVELOPMENTS LIMITED

Title

## PROPOSED LPS WASTEWATER STANDARD DETAIL

Project no.	215010		
Scale	N.T.S		
Cad file	215010-M-C540.DWG		
Drawing no.	M-C544	Rev	В

