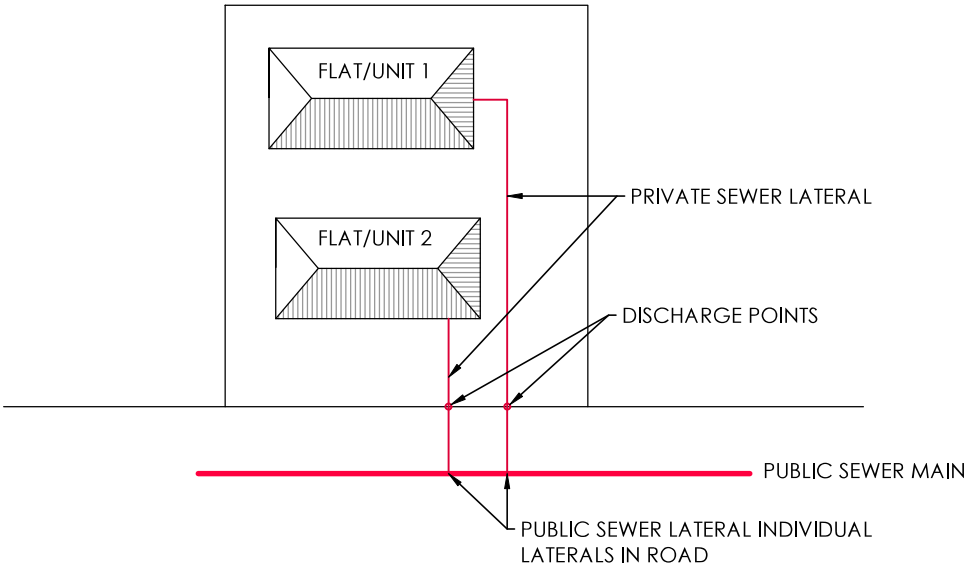
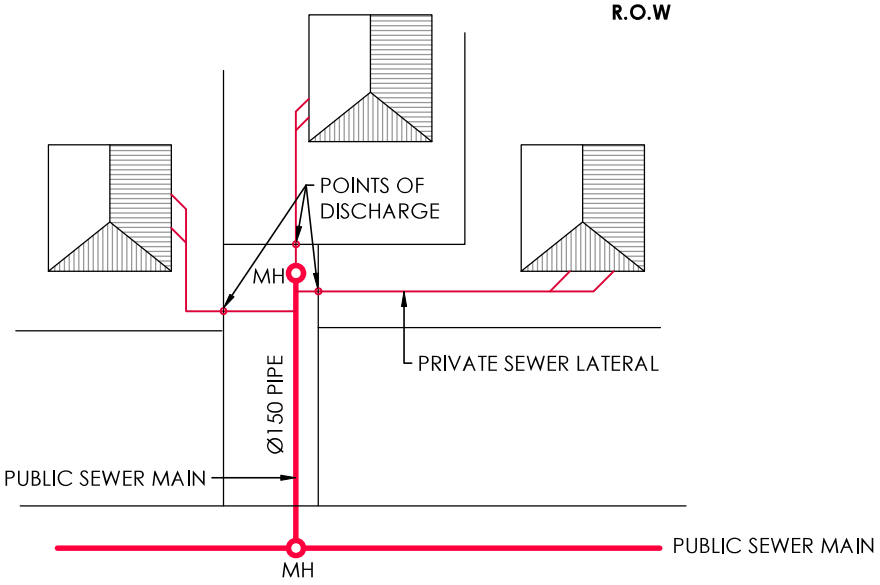


INDIVIDUAL CONNECTION TO PUBLIC SEWER FOR MULTIPLE DWELLINGS

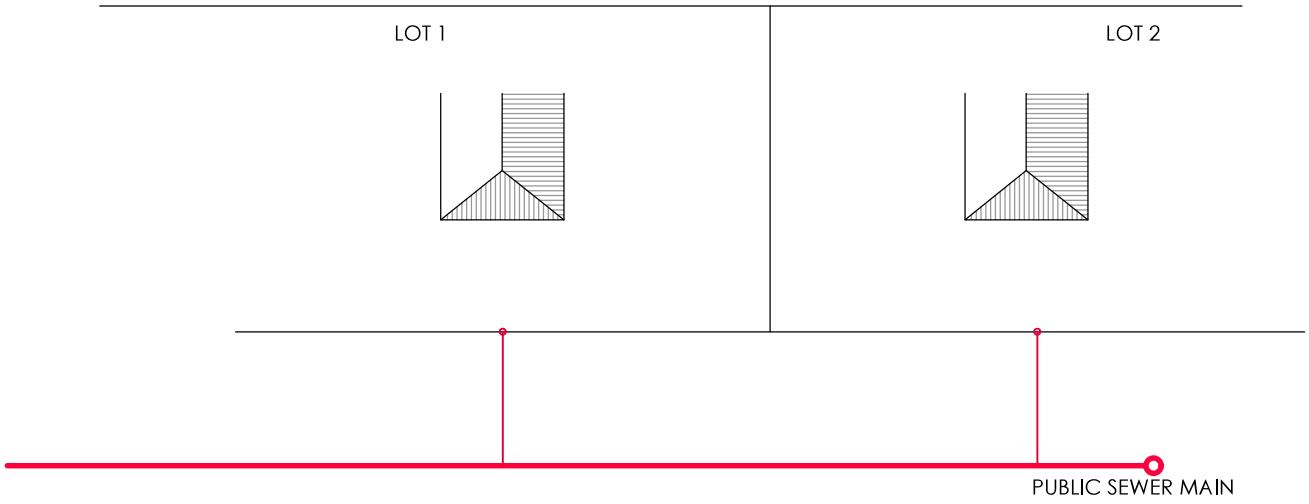
NOTES:

1. **SEWER IN R.O.W SHALL COMPLY WITH SDC ENGINEERING CODE OF PRACTICE**
2. **EASEMENTS IN FAVOUR OF THE COUNCIL IS REQUIRED OVER THE LENGTH COUNCIL MAIN IN R.O.W**

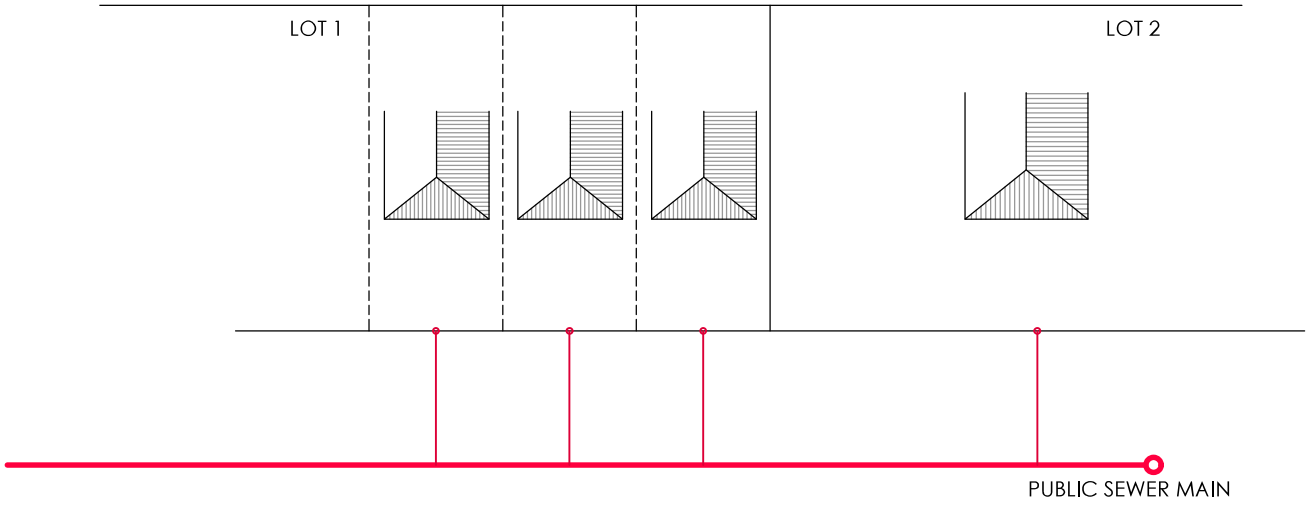


REAR LOTS ON RIGHT OF WAY (MORE THAN 1 PROPERTY)

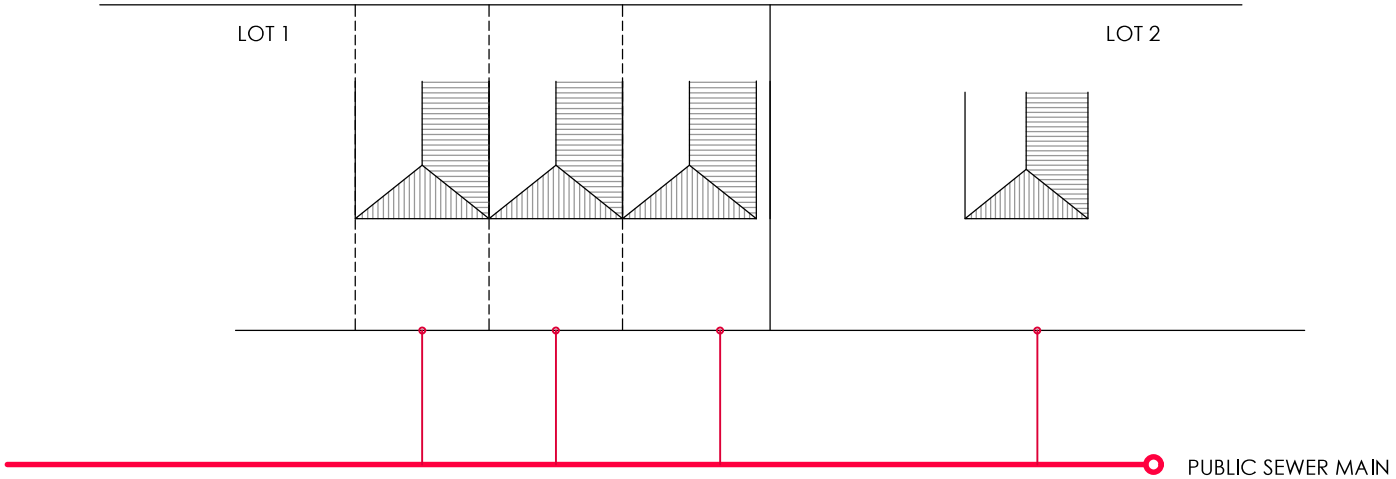
Selwyn DISTRICT COUNCIL	WASTEWATER CONNECTION POLICY	STANDARD NO: DR 1.0A DATE: JAN 2023 SCALE: NTS



SIMPLE LOT CONNECTION

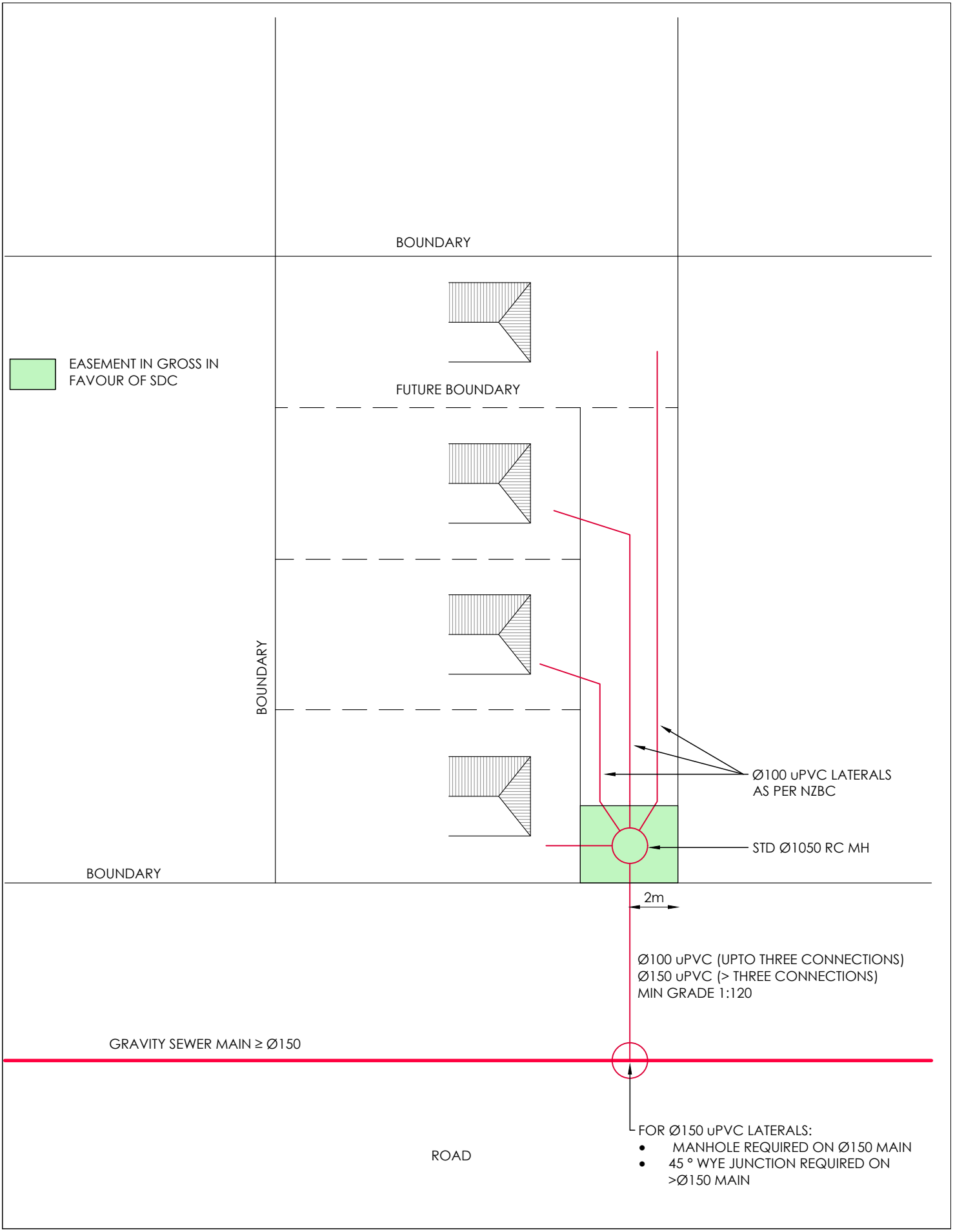


MDRS SUBDIVIDE OPTION 1



OPTION 2 UNIT TITLE RETIREMENT HOMES & MULITSTAY UNIT TITLES

Selwyn DISTRICT COUNCIL	WASTEWATER CONNECTION POLICY	STANDARD NO: DR 1.1 DATE: JAN 2023 SCALE: NTS



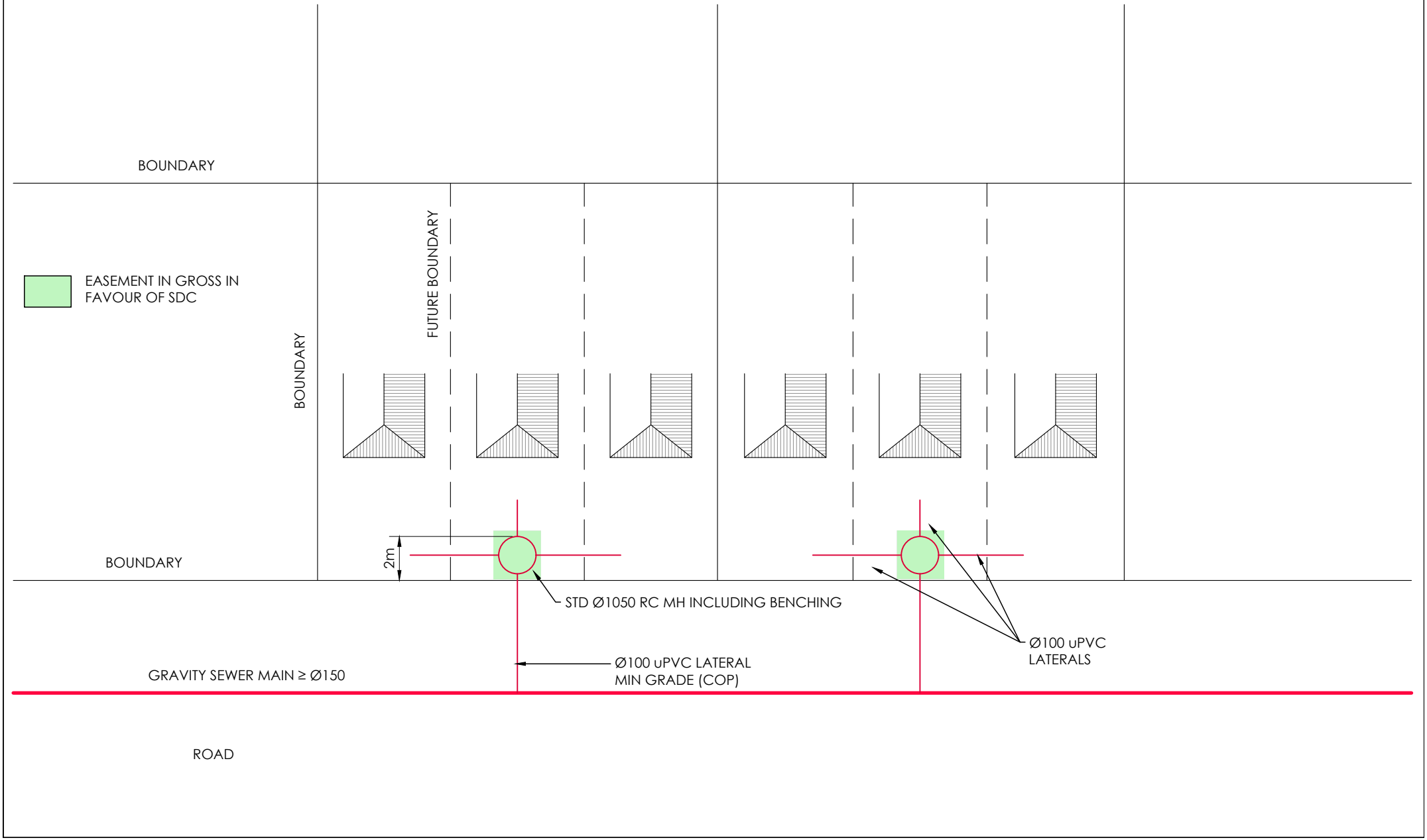
Selwyn DISTRICT COUNCIL

WASTEWATER CONNECTIONS TO ACCESS LOTS + RIGHTS OF WAYS ON COMPREHENSIVE SITES SHEET 1 OF 2

STANDARD NO: DR 1.2

DATE: JAN 2023

SCALE: NTS



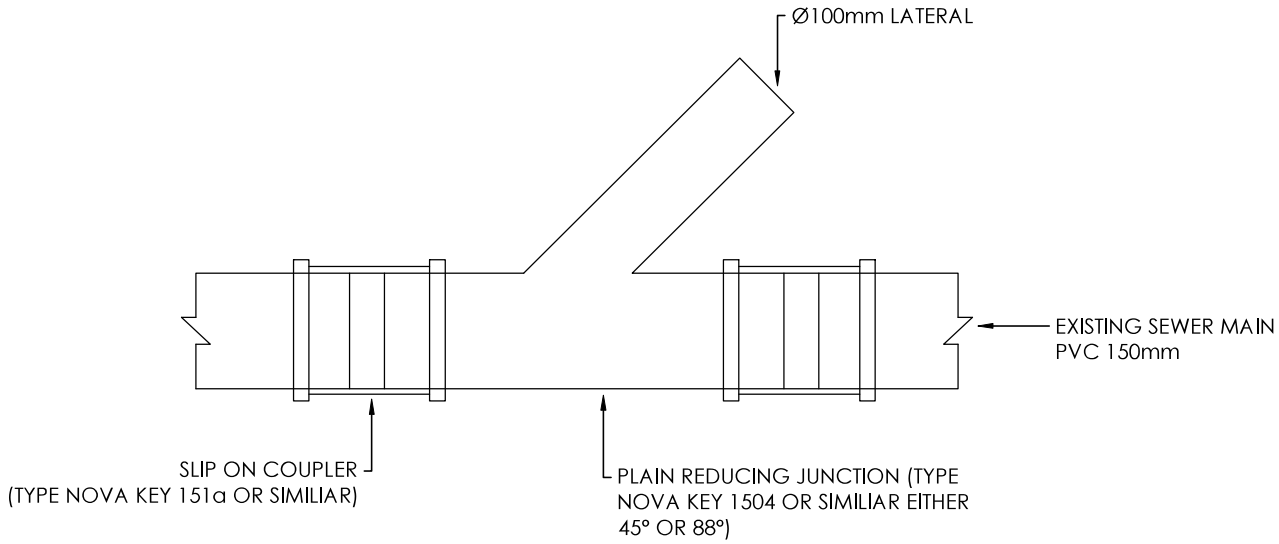
Selwyn DISTRICT COUNCIL

WASTEWATER CONNECTIONS TO ACCESS LOTS + RIGHTS OF WAYS ON COMPREHENSIVE SITES
SHEET 2 OF 2

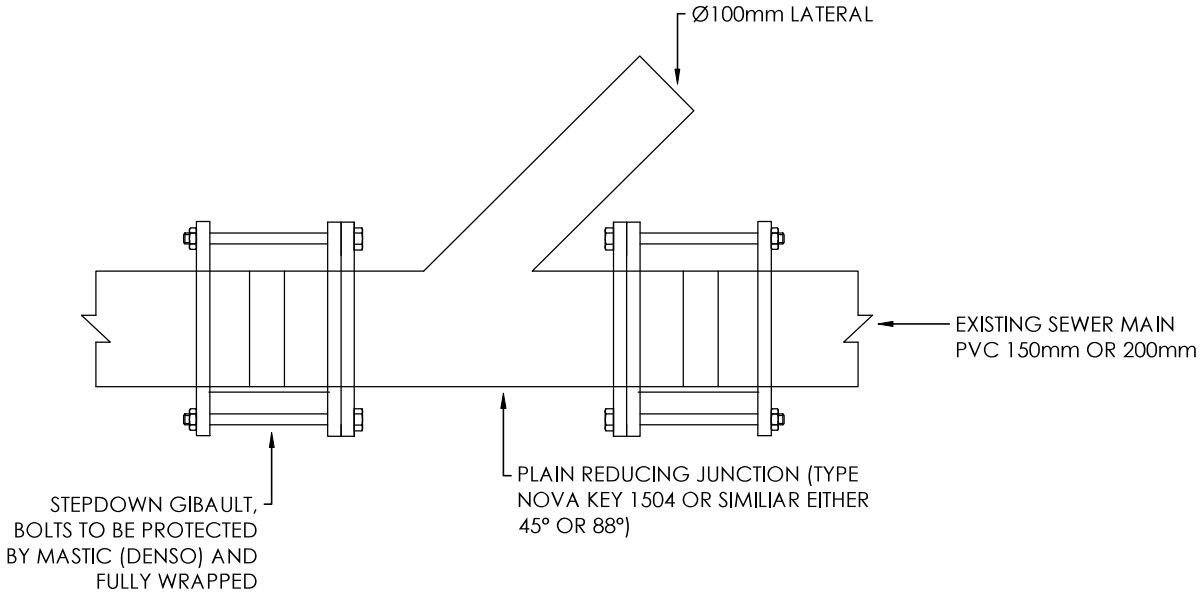
STANDARD NO: DR 1.3

JAN 2023

SCALE: NTS



JUNCTION INTO PVC SEWER MAIN



JUNCTION INTO AC AND CONCRETE SEWER MAIN

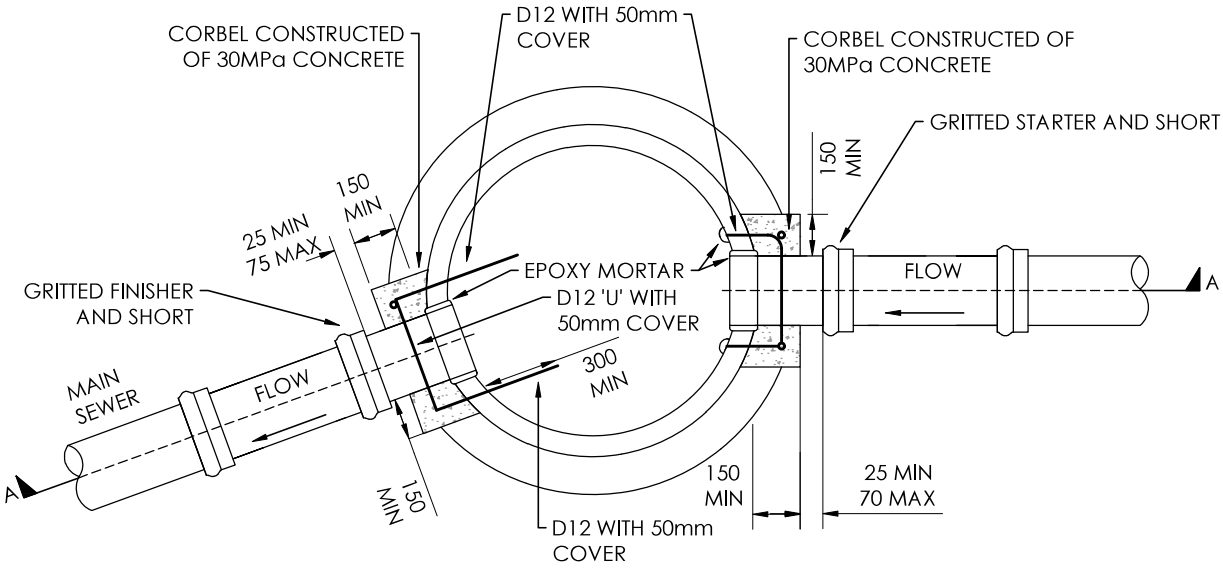
Selwyn DISTRICT COUNCIL

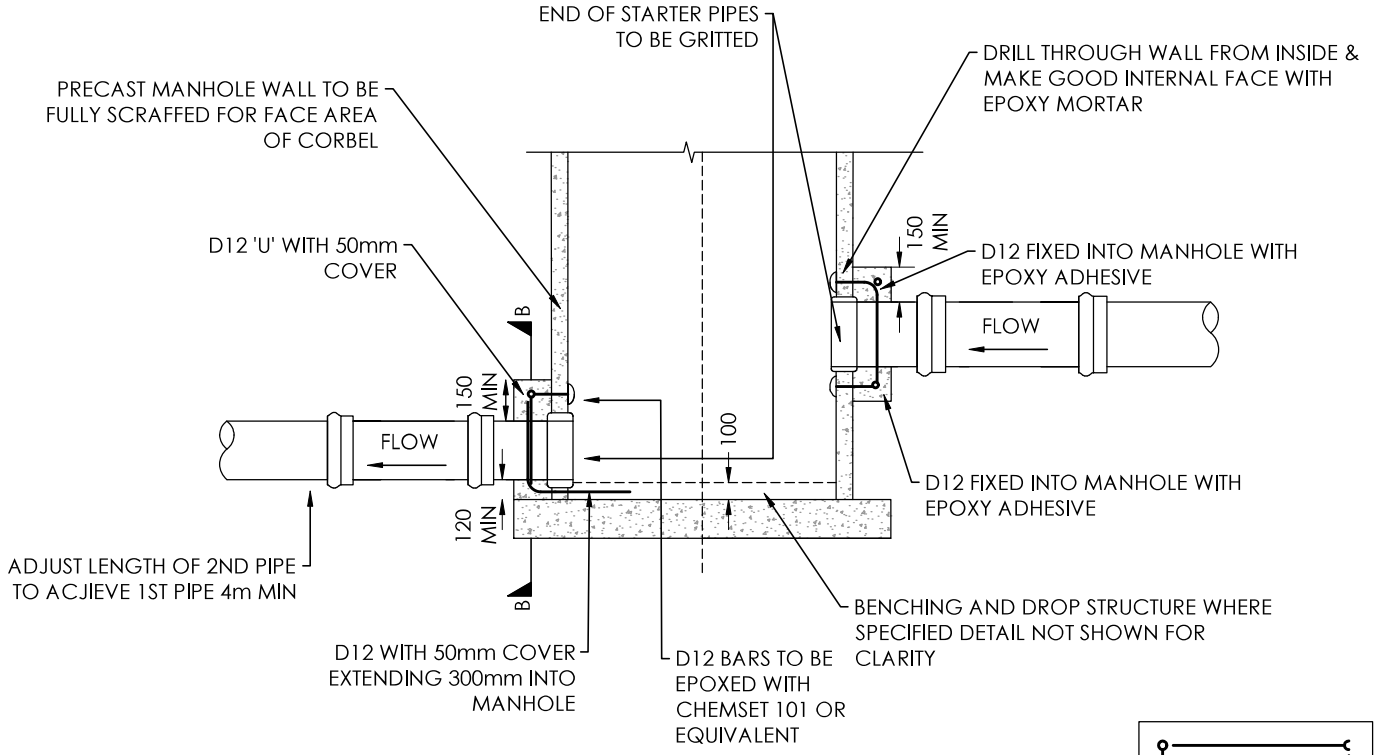
CUT IN DETAIL FOR
LATERAL GRAVITY SEWER
CONNECTIONS

STANDARD NO: DR 2.0

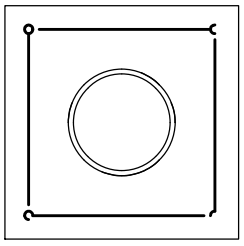
DATE: JAN 2023

SCALE: NTS





SECTION A-A



SECTION B-B

NOTES:

1) **BOTTOM D12 BARS TO EXTEND 300mm INTO MANHOLE TO TIE IN BENCHING**
2) **DRILL THROUGH MANHOLE FROM THE INSIDE TO ASSIST WITH SCARIFYING ON THE OUTSIDE AND FOR A TIDY INSIDE FINISH. STARTER AND FINISHER HOLES TO BE DRILLED OR CUT OUT. NOT TO BE SMASHED.**
3) **D12 BARS TO HAVE 50mm MINIMUM COVER**
4) **CONCRETE CORBELS TO BE 30MPa AND TO BE BATCHED IN CONCRETE MIXER FOLLOWING THE MIXING INSTRUCTIONS OR SUPPLIED BY A CERTIFIED BATCHING PLANT**
5) **SDC REPRESENTATIVES MUST BE GIVEN AMPLE OPPORTUNITY FOR CORBEL INSPECTION PRIOR TO CONCRETE PLACEMENT**
6) **SDC RESERVES THE RIGHT TO HAVE ANY CORBELS CONCRETE TESTED, REMOVED AND REPLACED AT DEVELOPERS COST**

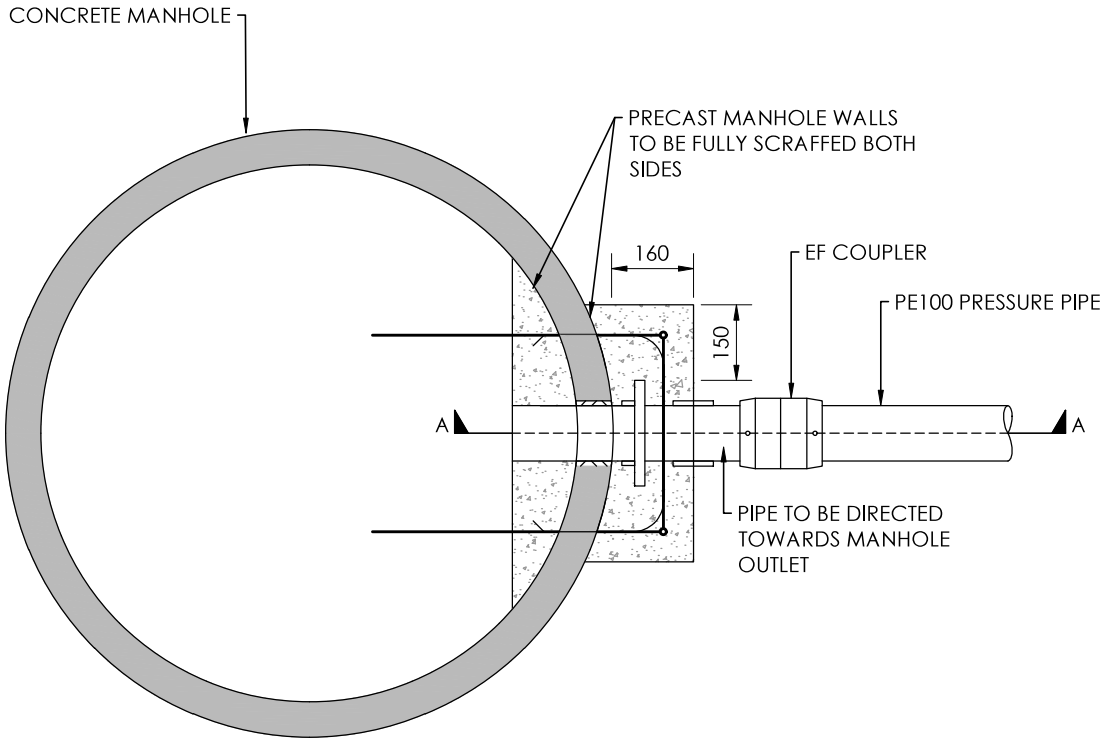
Selwyn DISTRICT COUNCIL

PVC & CONCRETE PIPE CORBEL CONSTRUCTION

STANDARD NO: DR 2.1

DATE: JAN 2023

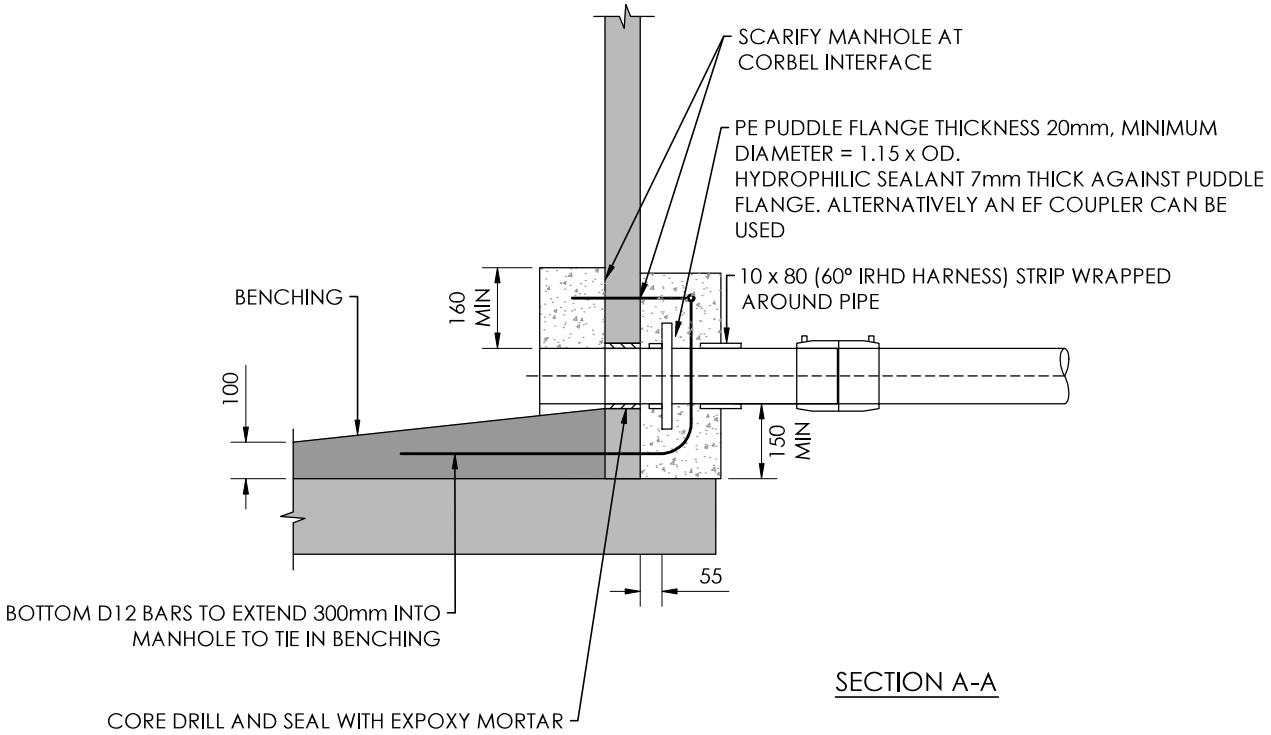
SCALE: NTS



PLAN

NOTES:

1) **D12 BARS TO BE EXPOXED WITH CHEMSET 101 OR SIMILAR**
2) **DRILL THROUGH MANHOLE FROM THE INSIDE TO ASSIST WITH SCARIFYING ON OUTSIDE & FOR TIDY INSIDE FINISH**
3) **D12 BARS TO HAVE MINIMUM 50mm COVER**
4) **CONCRETE CORBELS TO BE 30MPa**



SECTION A-A

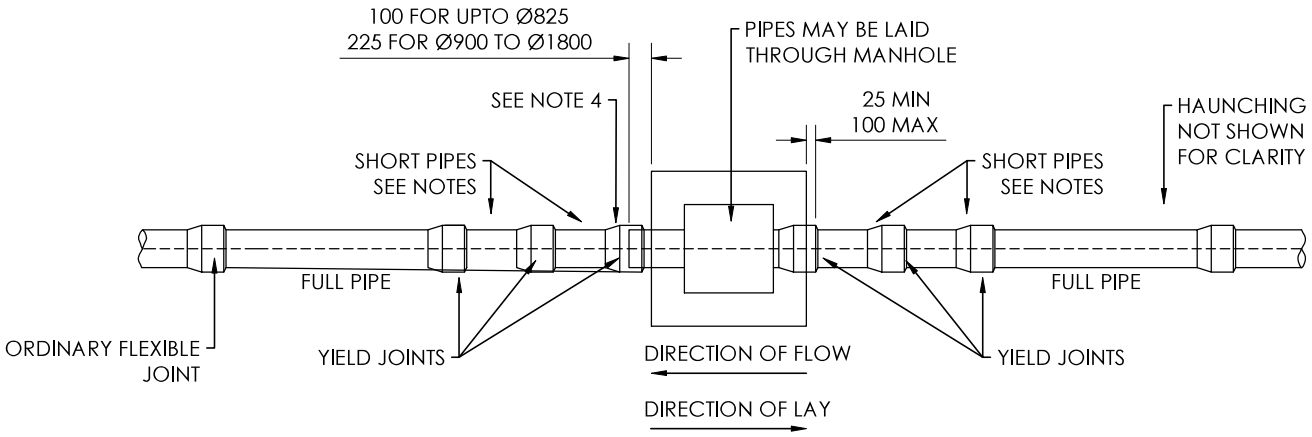
Selwyn DISTRICT COUNCIL

POLYETHYLENE PIPE CORBEL CONSTRUCTION

STANDARD NO: DR 2.2

DATE: JAN 2023

SCALE: NTS

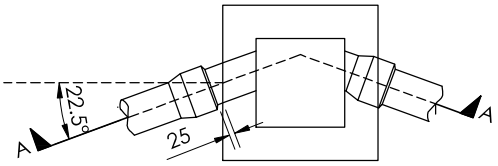


GENERAL METHOD OF PIPELAYING AT MANHOLES AND SUMPS FOR CONCRETE PIPES

NOTES:

1. **PIPELINES THAT ARE CONCRETE HAUNCHED OR CONCRETE SURROUNDED SHALL HAVE THE CONCRETE INTERRUPTED AT EACH YIELD JOINT WITH SOFTBOARD OR EQUIVALENT**
2. **FOR REINFORCED CONCRETE SHORT PIPES THE FOLLOWING TABLE SHALL APPLY:**

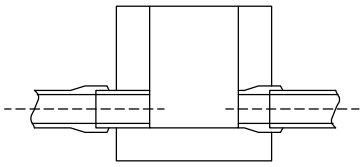
PIPE DIAMETER	MIN	MAX
225	600	800
300	750	1000
375	900	1200
450	1100	1450
525	1300	1700
600	1500	1900
675	1700	2100



ANGLE CONNECTIONS

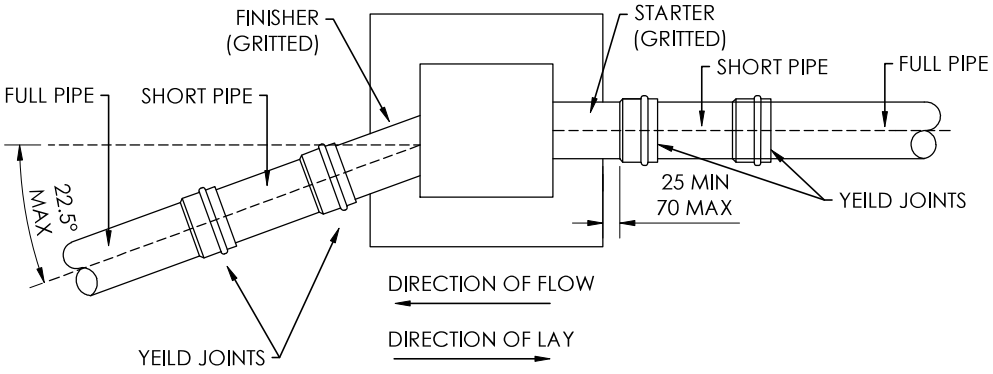
3. **AT EACH PIPELINE CONNECTING TO A MANHOLE OR SUMP THE NUMBER OF SHORT PIPES AND YIELD JOINTS SHALL COMPLY WITH THE FOLLOWING TABLE:**

PIPE DIAMETER	SHORT PIPES	YIELD JOINTS
100 TO 525	2	3
600 TO 675	1	2
750 TO 2100	0	1
SUMP	1	2



SECTION A-A

4. **THIS PIPE MAYBE DOUBLE SPIGOT PIPE WITH A SOCKET FINISHER IN THE MANHOLE WALL WITH ENGINEERS APPROVAL. MAX LENGTH PIPE 1300mm, MIN LENGTH 450mm**
5. **GIBAULT JOINTS SHALL NOT BE USED AS YIELD JOINTS UNLESS APPROVED BY THE ENGINEER**
6. **SUMPS DO NOT REQUIRE CORBELS**



PIPE LAYING AT SUMPS & MANHOLES FOR PVC PIPES

NOTES:

1. **SHORT PIPES SHALL HAVE A MINIMUM LENGTH OF 700mm & A MAXIMUM OF 1000mm**
2. **ON EACH PIPELINE CONNECTING TO A STRUCTURE THERE SHALL BE ONE SHORT PIPE AND TWO YIELD JOINTS**
3. **PIPES MAY BE LAID STRAIGHT THROUGH STRUCTURES BUT MUST BE GRITTED**

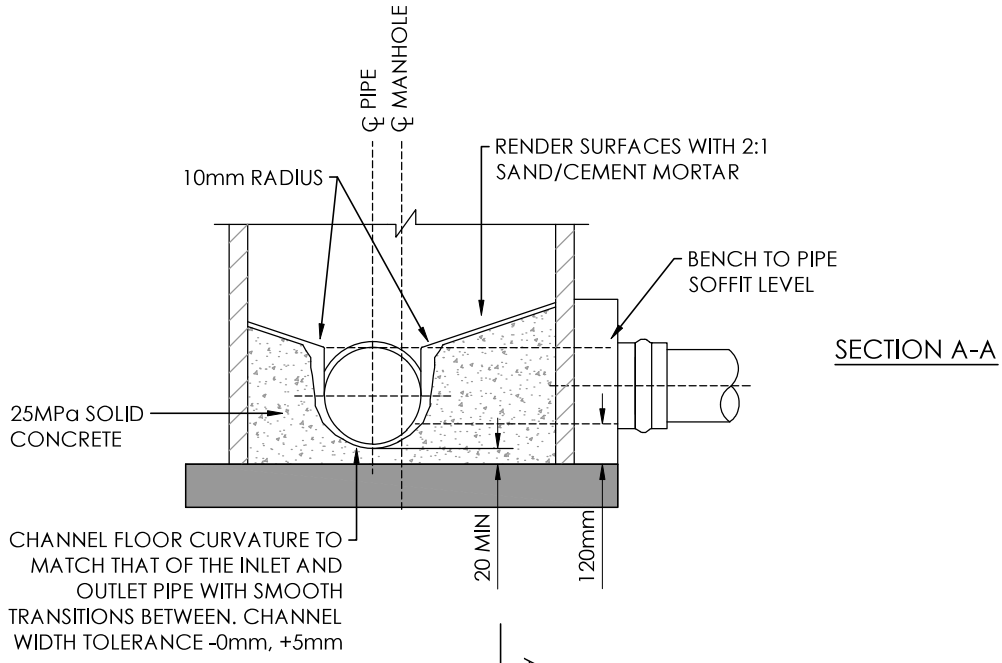
Selwyn DISTRICT COUNCIL

PIPELAYING AT MANHOLES & SUMPS

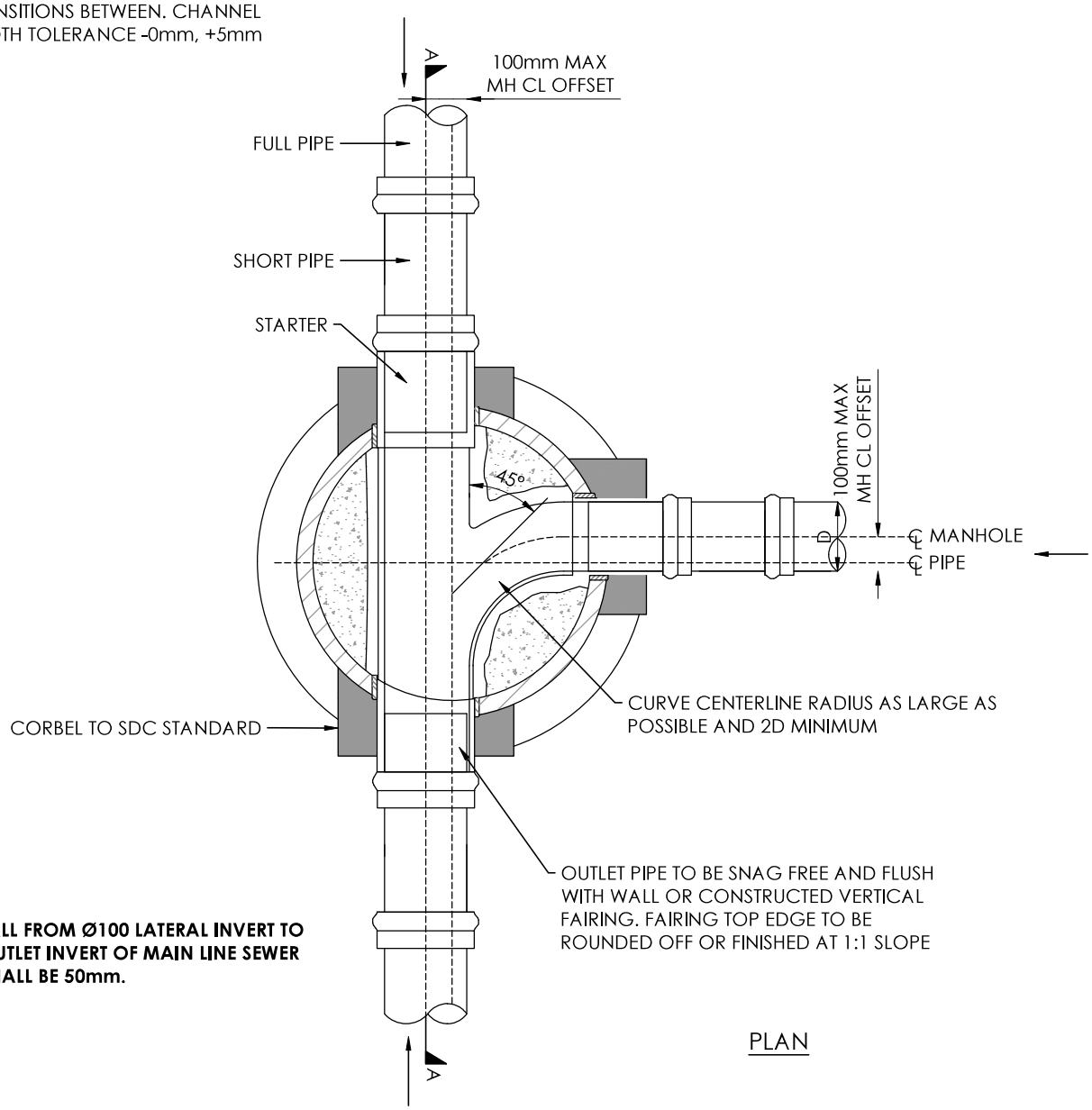
STANDARD NO: DR 2.3

DATE: JAN 2023

SCALE: NTS



SECTION A-A



PLAN

NOTES:

1. **FALL FROM Ø100 LATERAL INVERT TO OUTLET INVERT OF MAIN LINE SEWER SHALL BE 50mm.**

Selwyn DISTRICT COUNCIL

MANHOLE BENCHING FREEHAND

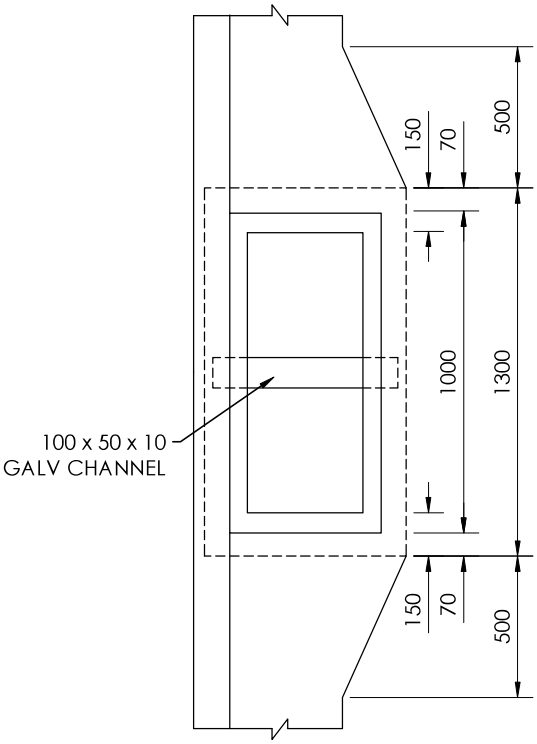
STANDARD NO: DR 2.4

DATE: JAN 2023

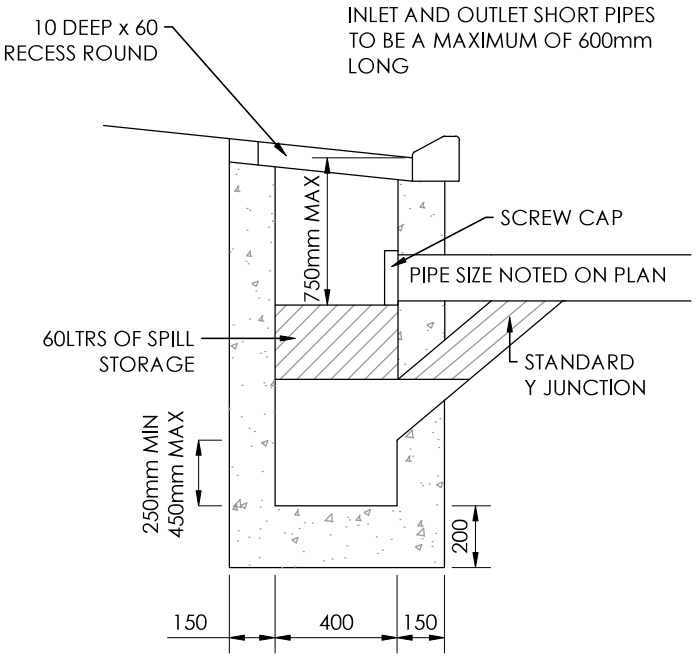
SCALE: NTS

NOTES:

1) **PIPE WORK CONNECTIONS TO SUMPS TO HAVE 2 YIELD JOINTS WITH 1 SHORT PIPE INSTALLE1D**
2) **CONNECTIONS SHALL COMPLY WITH NZS 2109**

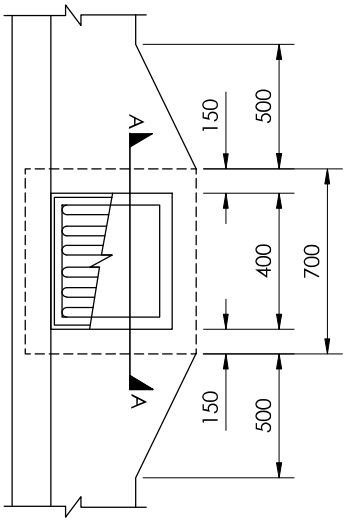


PLAN
DOUBLE SUMP



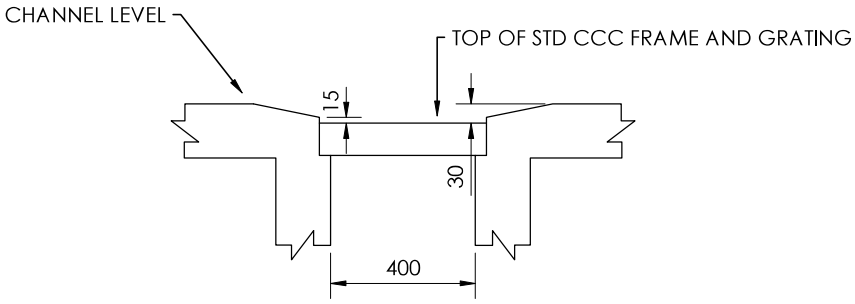
SUMP WITH SUBMERGED
ENTRY

ELEVATION



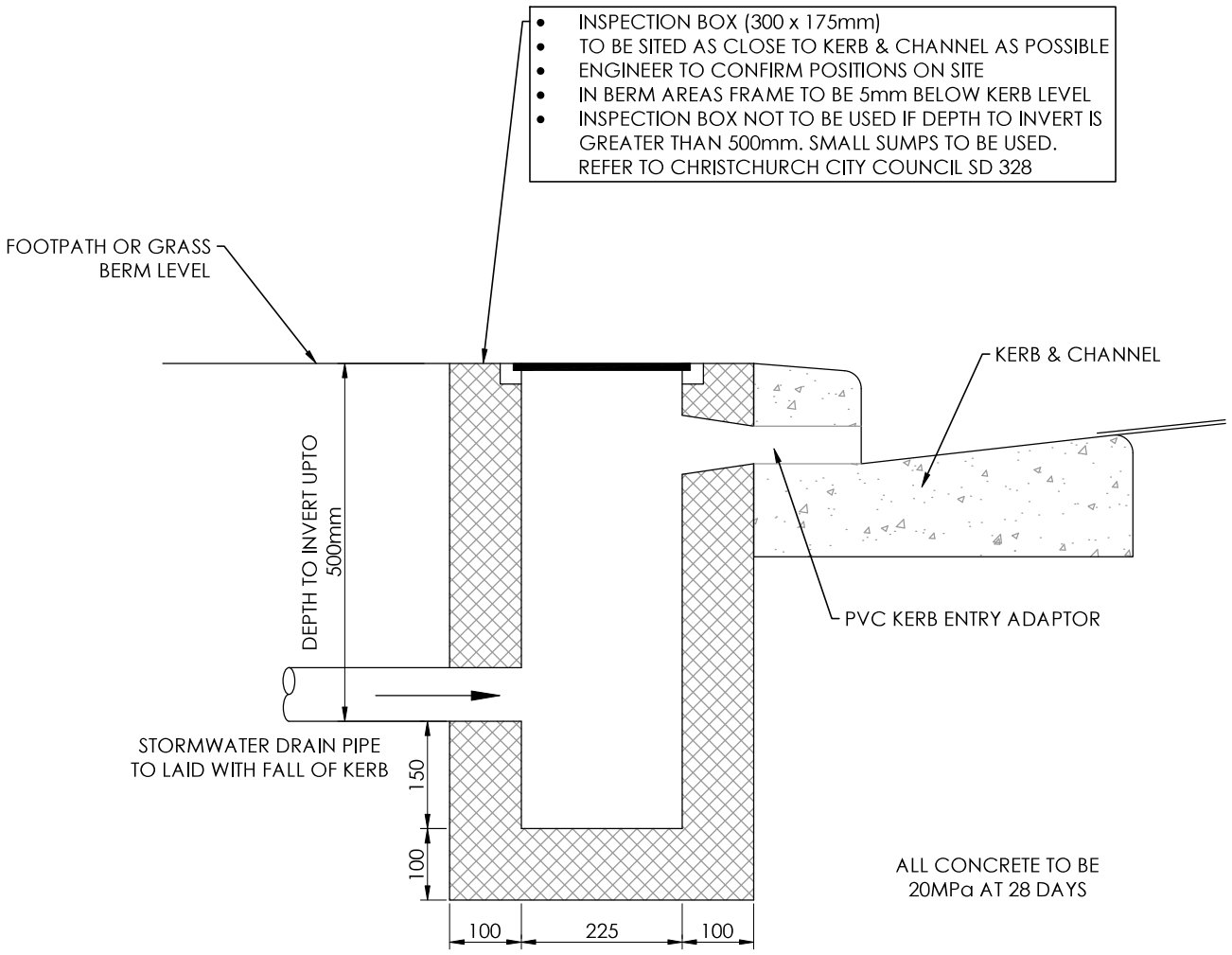
PLAN
SINGLE SUMP

SUMPS ARE TO HAVE WAVY SUMP GRATING & FRAME. REFER TO CCC SD301/5.
BUBBLE-UP SUMP: FRAMES & GRATING TO BE FLUSH IN CHANNEL.
STANDARD SUMP: GRATING/FRAME SET 15mm BELOW CHANNEL LEVEL DEPRESS CHANNEL 30mm FOR 150mm LENGTH EACH SIDE



SECTION A-A

Selwyn DISTRICT COUNCIL	SUMP DETAILS	STANDARD NO: DR 3.0 DATE: JAN 2023 SCALE: NTS



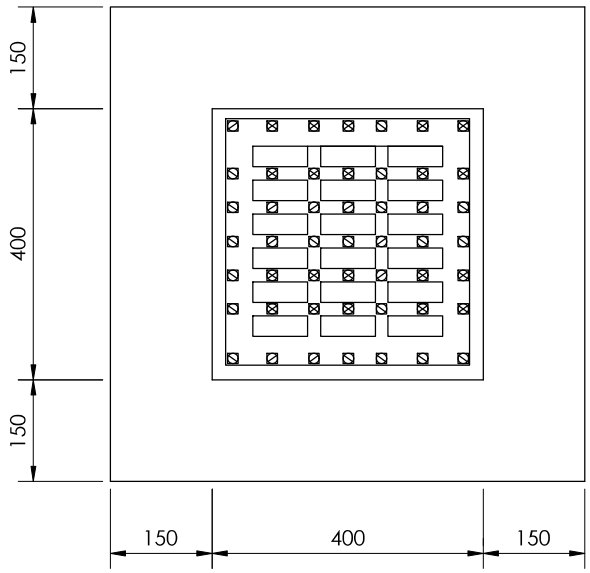
Selwyn DISTRICT COUNCIL

HOUSE DRAIN INSPECTION BOX

STANDARD NO: DR 3.1

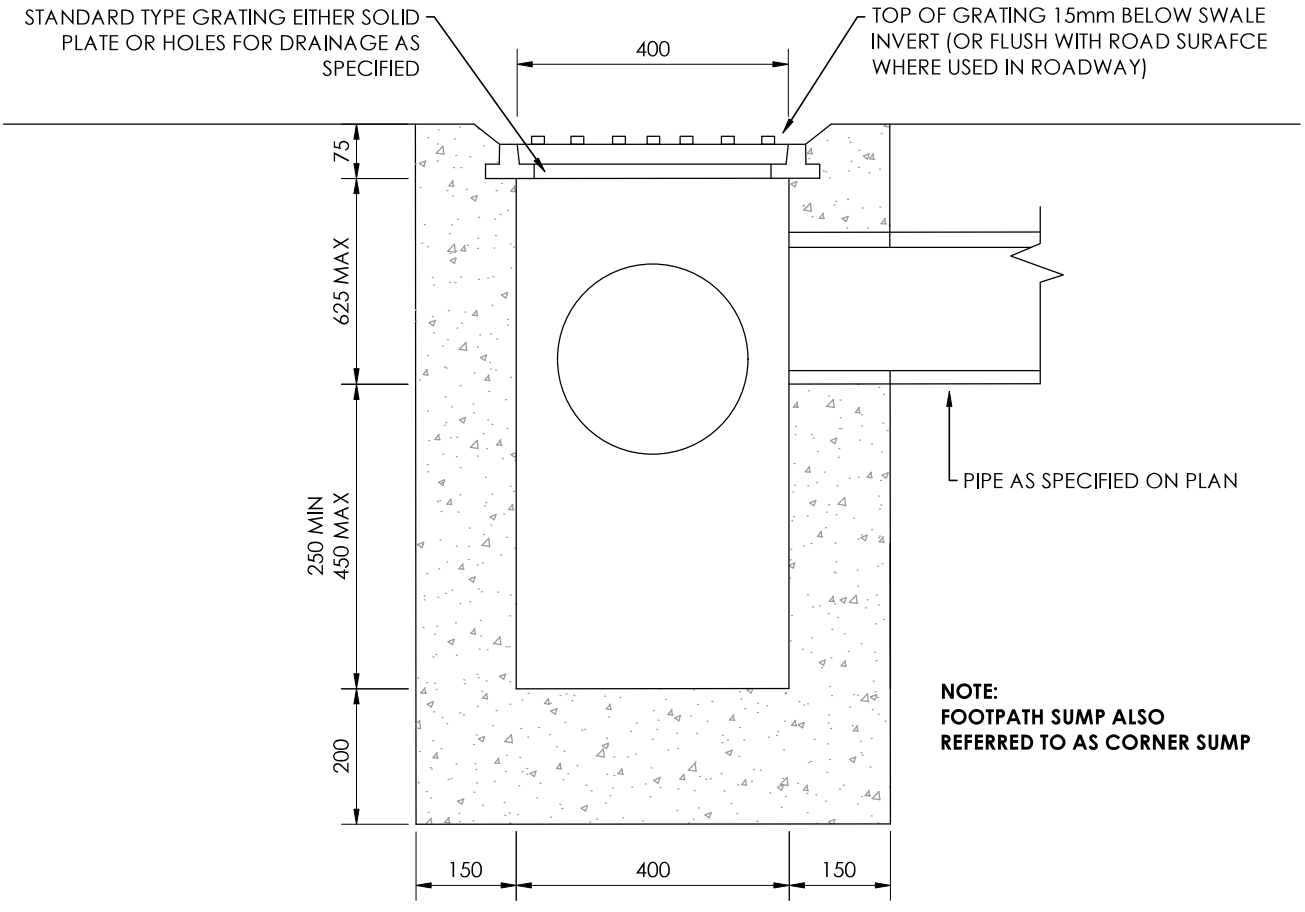
DATE: JAN 2023

SCALE: 1 : 10 @ A4



STANDARD FOOTPATH LID,
REFER CHRISTCHURCH CITY COUNCIL,
SD 301/3

PLAN VIEW

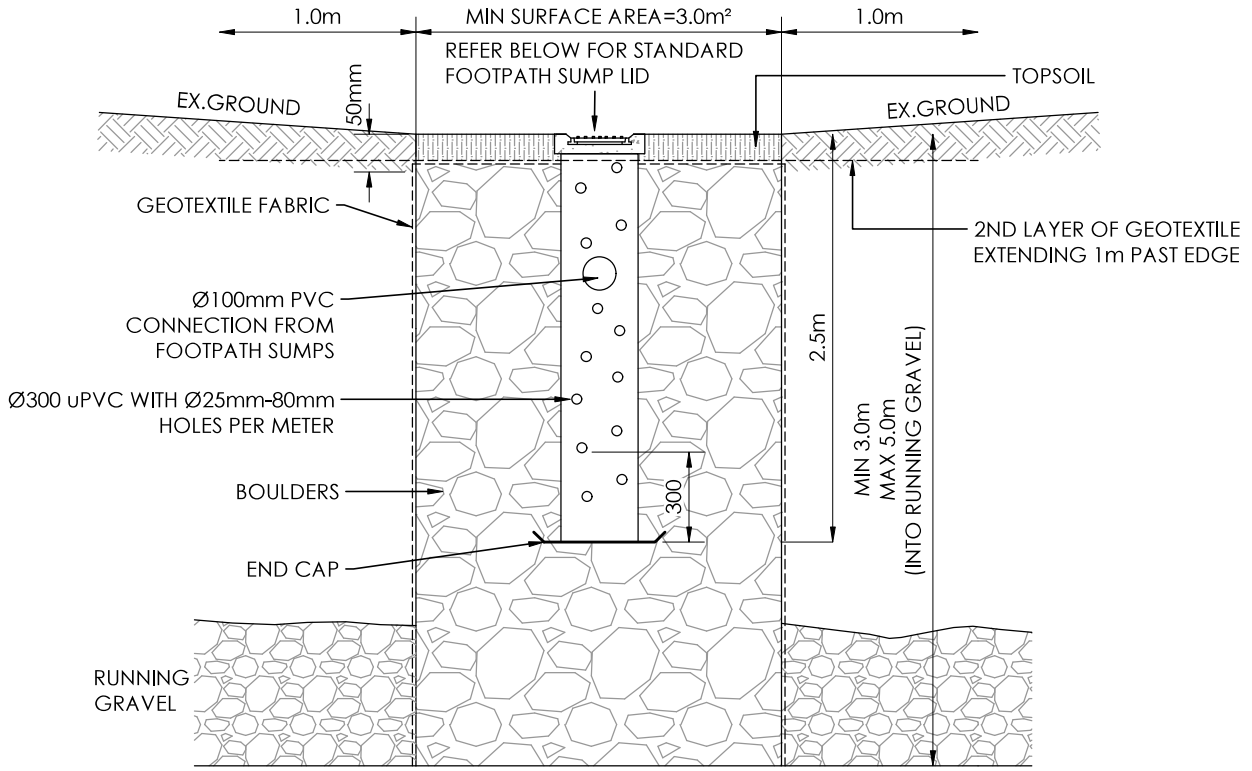


NOTE:
FOOTPATH SUMP ALSO REFERRED TO AS CORNER SUMP

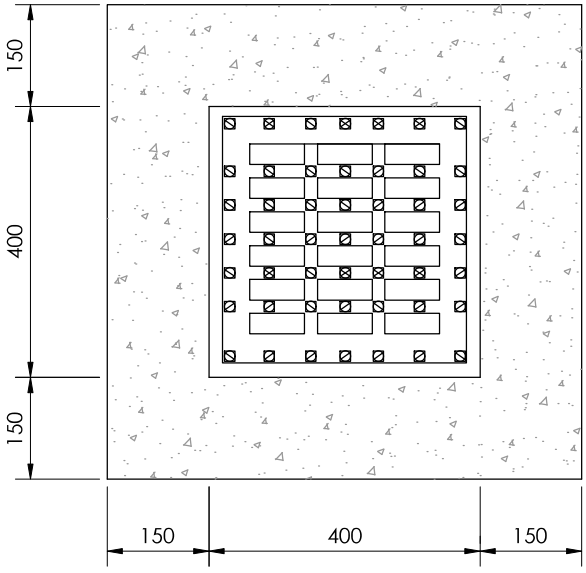
ELEVATION

FOOTPATH SUMP

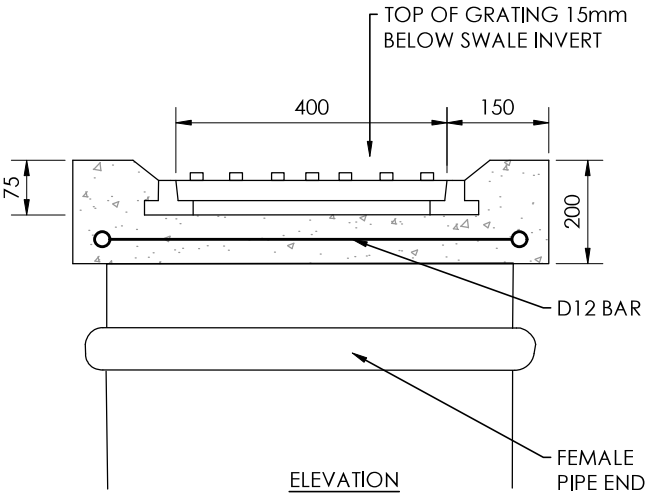
Selwyn DISTRICT COUNCIL	CORNER SUMP	STANDARD NO: DR 3.2 DATE: JAN 2023 SCALE: NTS



NOTES:
CAST IRON FRAME AND SOLID LID,
COVER AS PER CCC SD 301/3
SET INTO CONCRETE SURROUND 150mm WIDE
x 200mm DEEP WITH 1 x D12 BAR
SET ON AP20



PLAN



ELEVATION

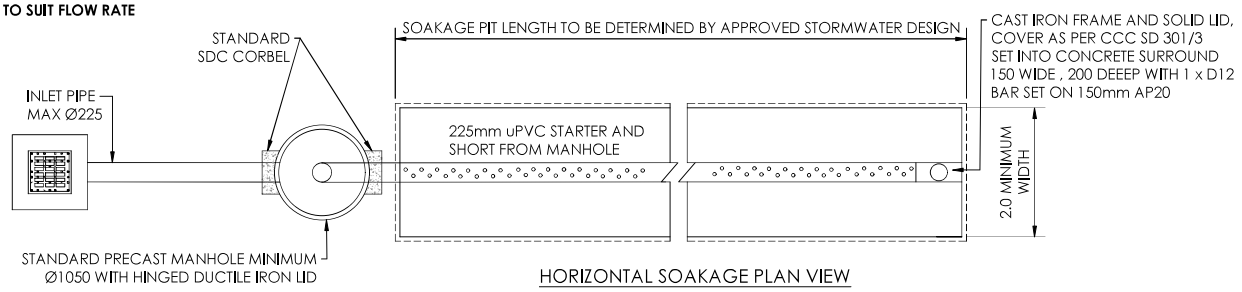
STANDARD FOOTPATH LID

Selwyn DISTRICT COUNCIL

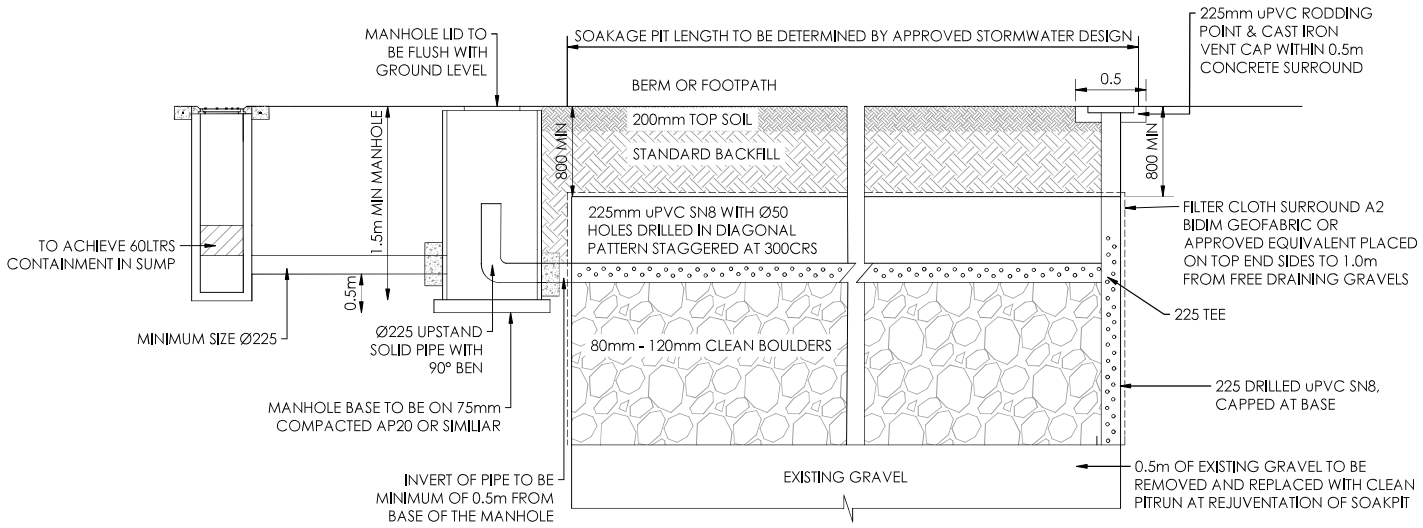
DIRECT ENTRY
MODIFIED SOAK HOLE

STANDARD NO: DR 3.3
DATE: JAN 2023
SCALE: NTS

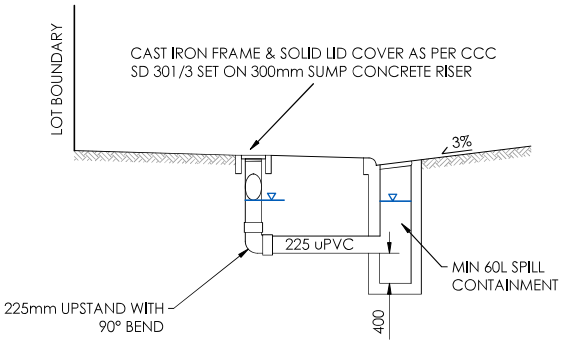
NOTE:
DRILL PATTERN DESIGNED TO SUIT FLOW RATE



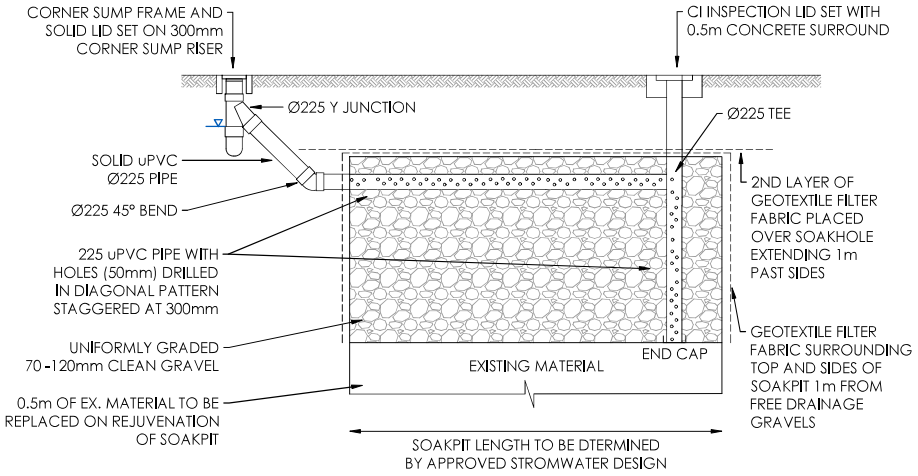
HORIZONTAL SOAKAGE PLAN VIEW



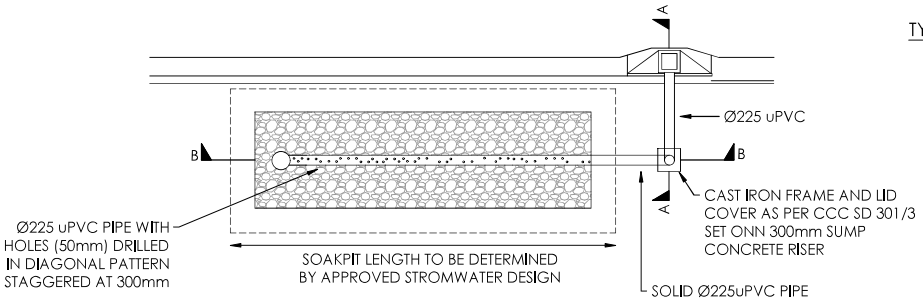
	HORIZONTAL SOAKAGE WITH MANHOLE INLET	STANDARD NO: DR 3.4 JAN 2023 SCALE: NTS



TYPICAL SUMP - SOAKPIT SECTION (A-A)



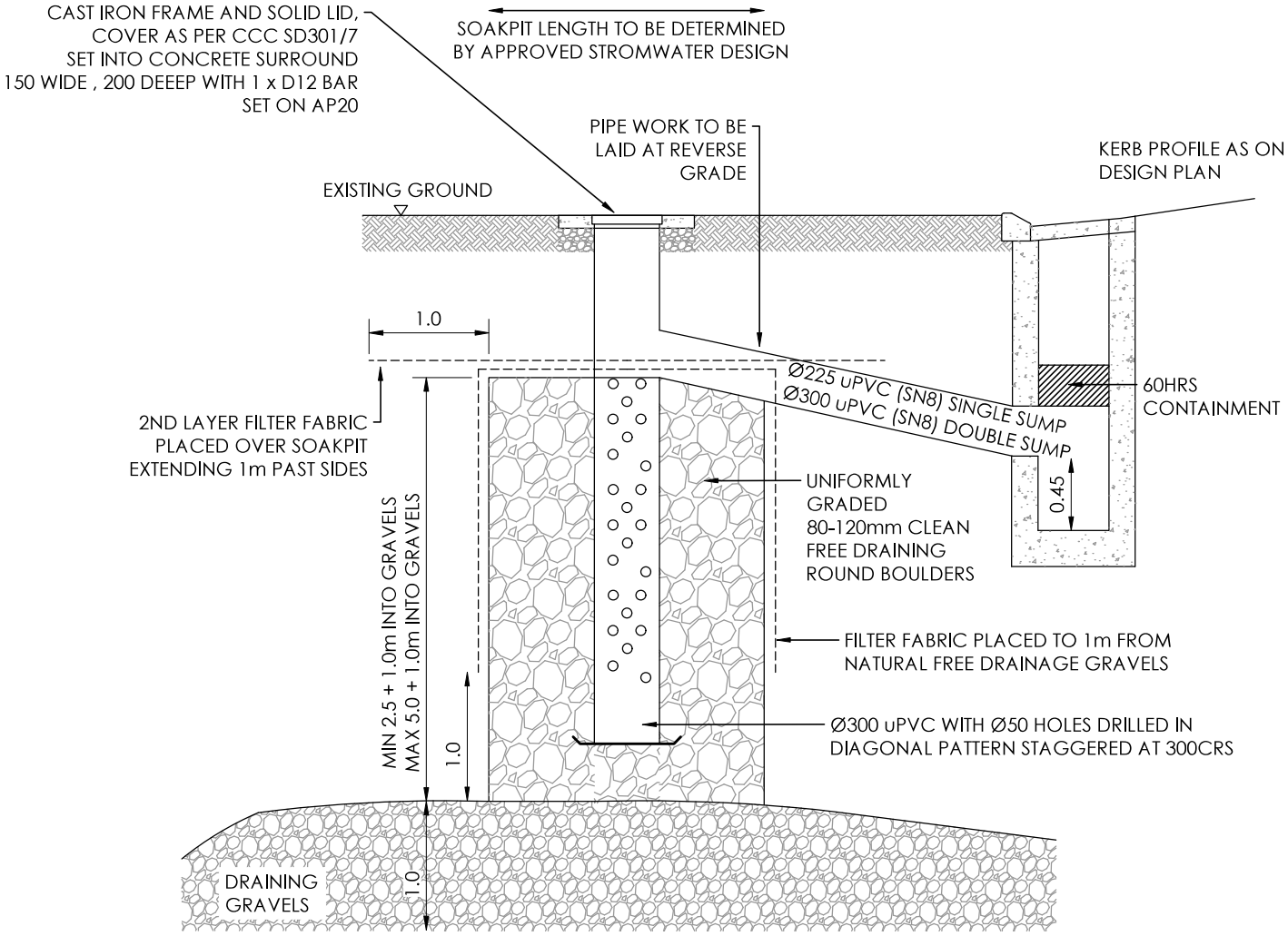
TYPICAL SOAKPIT SECTION (B-B)



TYPICAL SOAKPIT SECTION

NOTE:
DRILL PATTERN DESIGNED TO SUIT FLOW RATE

Selwyn DISTRICT COUNCIL	HORIZONTAL SOAKAGE WITH RODDING POINT	STANDARD NO: DR 3.5 JAN 2023 SCALE: NTS



STANDARD MODIFIED SOAK HOLE WITH SUBMERGE ENTRY

NOTES:

1. **SOAK HOLE SIZING TO BE DETERMINED BY DESIGN ENGINEER**
2. **SOLID CAST IRON LID SD 301/3. MINIMUM 150mm WIDE CONCRETE SURROUND WHEN INSTALLED WITHIN GRASS BERM. NO SURROUND REQUIRED IF THE LID IS WITHIN SEALED SURFACE. LID LEVEL TO BE 10-15mm LESS THAN FINISHED LEVEL IF IN BERM AREA**
3. **CLEAN FILL BETWEEN AP20/LID AND TOP OF GEOTEXTILE. GEOTEXTILE/FILTER FABRIC INSTALLED ALONG TOP OF SOAK PIT WITH A MINIMUM 1.0 EXTENSION HORIZONTALLY OF EACH SOAK PIT. GEOTEXTILE/FILTER FABRIC TO BE PLACED A MINIMUM 1.0m ALONG EDGE OF SOAKPIT AREA**
4. **DRILL PATTERN DESIGNED TO SUIT FLOW RATE**

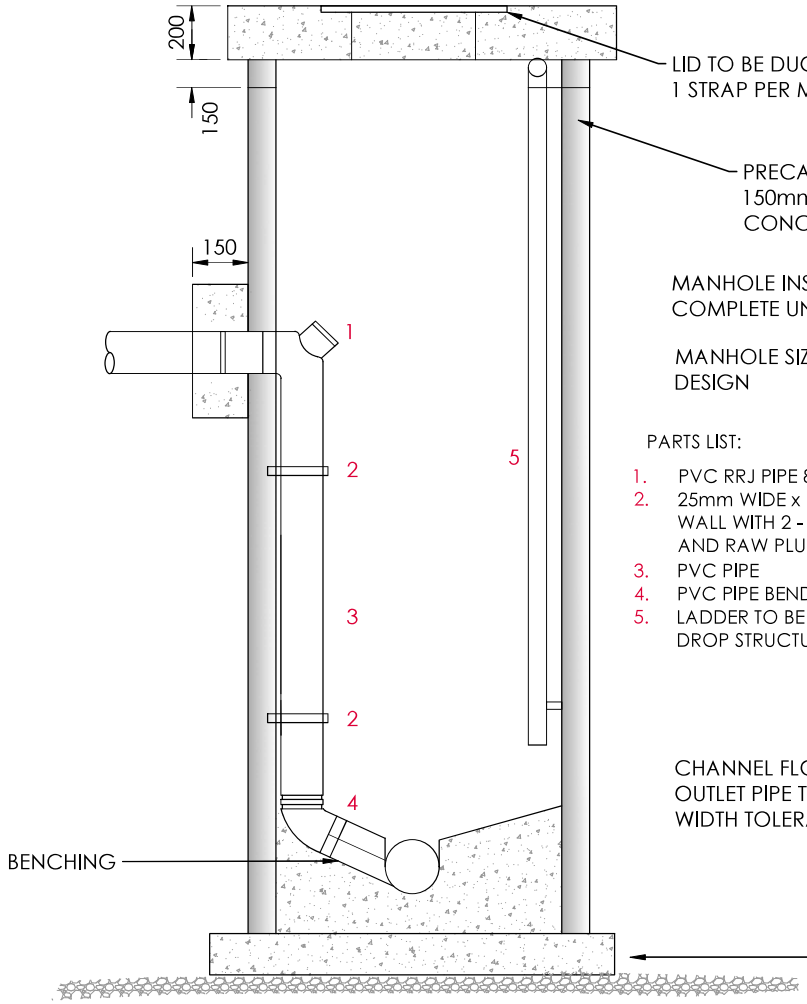
Selwyn DISTRICT COUNCIL

MODIFIED SOAK HOLE WITH SUBMERGE ENTRY

STANDARD NO: DR 3.6

DATE: JAN 2023

SCALE: NTS



MANHOLE INSTALLATION IN WET AREAS MAY REQUIRE COMPLETE UNIT CHAMBER TO BE USED, NO RISERS ALLOWED

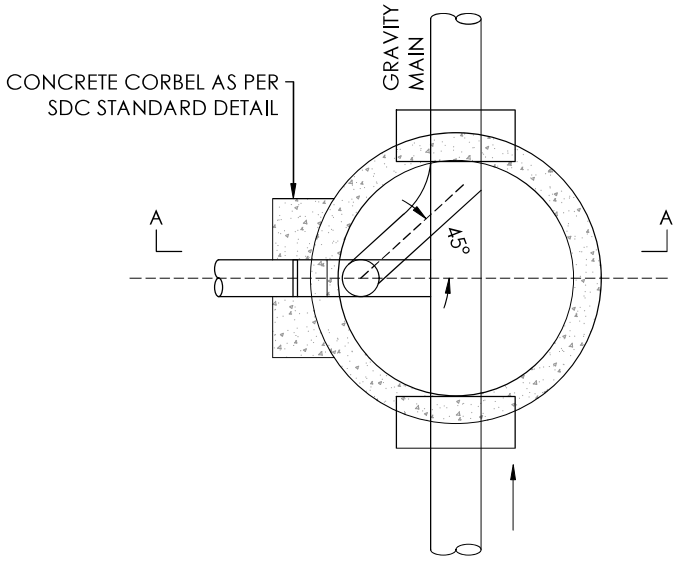
MANHOLE SIZE AND DEPTH AS PER APPROVED ENGINEERING DESIGN

PARTS LIST:

1. PVC RRJ PIPE 88° BACK INSPECTION BEND
2. 25mm WIDE x 1.25mm 316 STAINLESS STEEL STRAP FIXED TO MANHOLE WALL WITH 2 - 38mm x 10 GAUGE STAINLESS STEEL SELF TAPPING SCREWS AND RAW PLUGS. 1 STRAP PER METER
3. PVC PIPE
4. PVC PIPE BEND 135°
5. LADDER TO BE INSTALLED, 1 CLAMP PER METER, DROP STRUCTURE PIPE TO BE 50mm MAX OFF MANHOLE WALL

CHANNEL FLOOR CURVATURE TO MATCH THAT OF THE INLET & OUTLET PIPE TO HAVE SMOOTH TRANSITIONS BETWEEN. CHANNEL WIDTH TOLERANCE -0mm , +5mm

SECTION A-A
DROP INSTALLATION
CIRCULAR PRECAST MANHOLE



PLAN

NOTES:

1. **DROP STRUCTURES OVER 225Ø OR HIGH PRESSURE REQUIRE SPECIAL DESIGN.**
2. **MANHOLES TO BE CO CONSTRUCTED AS DETAILED ON CCC PLAN SD303.**
3. **CHANNELING IN NEW MANHOLES SHALL BE VERTICAL TO TOP OF MAIN SEWER AND BENCHING GRADE AT 1 IN 3 OR 1 IN 8 AS APPLICABLE.**
4. **BENCHING AND CHANNELING IN EXISTING MANHOLES SHALL BE FORMED IN EASY CURVES.**
5. **IN MANHOLES WHERE THE SEWER MAIN EXCEEDS 600Ø A CHANNEL SHALL BE FORMED IN THE BENCHING UNDER THE PIPE 3.**
6. **IN EXISTING MANHOLES STEPS OR LADDERS SHALL BE RELOCATED IF REQUIRED TO PERMIT ACCESS.**
7. **OPENING FOR MANHOLE STARTER AND CORBEL SHALL BE CLEAR OF ANY JOINT IN PRECAST MAN HOLE BY AT LEAST 300mm.**

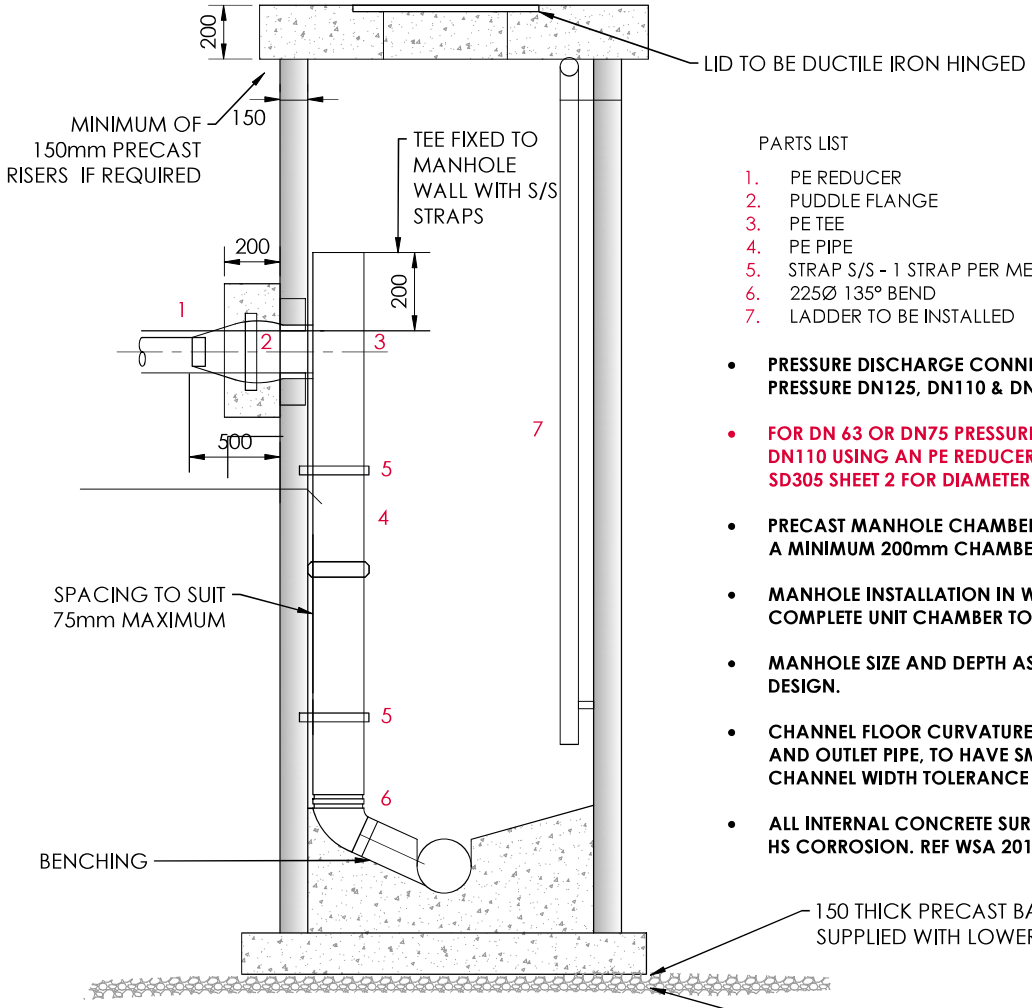
Selwyn DISTRICT COUNCIL

PVC DROP STRUCTURE IN MANHOLES

STANDARD NO: DR 4.0

DATE: JAN 2023

SCALE: NTS

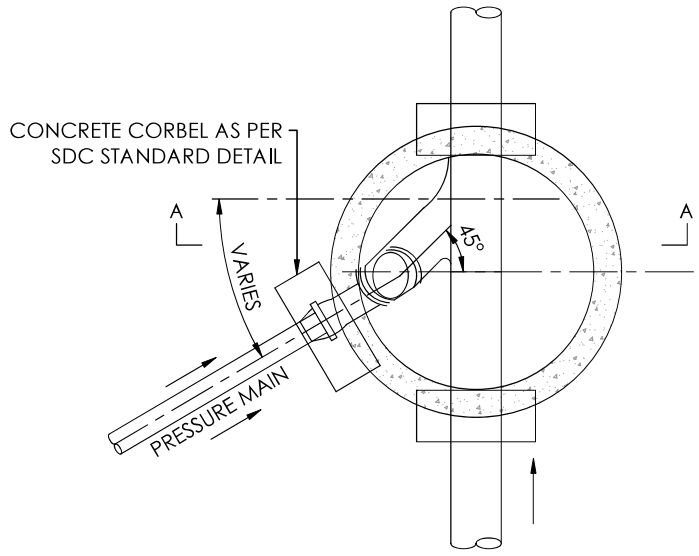


SECTION A-A
LOW PRESSURE SEWER DISCHARGE
INTO MANHOLE WITH DROP STRUCTURE

PARTS LIST

1. PE REDUCER
2. PUDDLE FLANGE
3. PE TEE
4. PE PIPE
5. STRAP S/S - 1 STRAP PER METER
6. 225Ø 135° BEND
7. LADDER TO BE INSTALLED

- **PRESSURE DISCHARGE CONNECTION CAN BE USED FOR PRESSURE DN125, DN110 & DN90.**
- **FOR DN 63 OR DN75 PRESSURE CONNECTION UPSIZE TO DN110 USING AN PE REDUCER. (ALSO COULD NOTE USE CCC SD305 SHEET 2 FOR DIAMETER LESS THAN DN 63)**
- **PRECAST MANHOLE CHAMBER WITH 150mm PRECAST RISER. A MINIMUM 200mm CHAMBER TOP BASE TO BE USED.**
- **MANHOLE INSTALLATION IN WET AREAS MAY REQUIRE COMPLETE UNIT CHAMBER TO BE USED, NO RISERS ALLOWED.**
- **MANHOLE SIZE AND DEPTH AS PER APPROVED ENGINEERING DESIGN.**
- **CHANNEL FLOOR CURVATURE TO MATCH THAT OF THE INLET AND OUTLET PIPE, TO HAVE SMOOTH TRANSITIONS BETWEEN. CHANNEL WIDTH TOLERANCE -0.mm, +5mm.**
- **ALL INTERNAL CONCRETE SURFACES TO BE LINED TO PREVENT HS CORROSION. REF WSA 201 EXPOSURE CLASS EXTREME.**



PLAN

NOTES:

1. **DROP STRUCTURES OVER 225Ø OR HIGH PRESSURE REQUIRE SPECIAL DESIGN.**
2. **MANHOLES TO BE CO CONSTRUCTED AS DETAILED ON CCC PLAN SD303.**
3. **CHANNELING IN NEW MANHOLES SHALL BE VERTICAL TO TOP OF MAIN SEWER AND BENCHING GRADE AT 1 IN 3 OR 1 IN 8 AS APPLICABLE.**
4. **BENCHING AND CHANNELING IN EXISTING MANHOLES SHALL BE REFORMED IN EASY CURVES.**
5. **IN MANHOLES WHERE THE SEWER MAIN EXCEEDS 600Ø A CHANNEL SHALL BE FORMED IN THE BENCHING UNDER THE PIPE 3.**
6. **IN EXISTING MANHOLES STEPS OR LADDERS SHALL BE RELOCATED IF REQUIRED TO PERMIT ACCESS.**
7. **OPENING FOR MANHOLE STARTER AND CORBEL SHALL BE CLEAR OF ANY JOINT IN PRECAST MAN HOLE BY AT LEAST 300mm.**

Selwyn DISTRICT COUNCIL

PE PRESSURE SEWER DISCHARGE INTO MANHOLE WITH DROP STRUCTURE

STANDARD NO: DR 4.1

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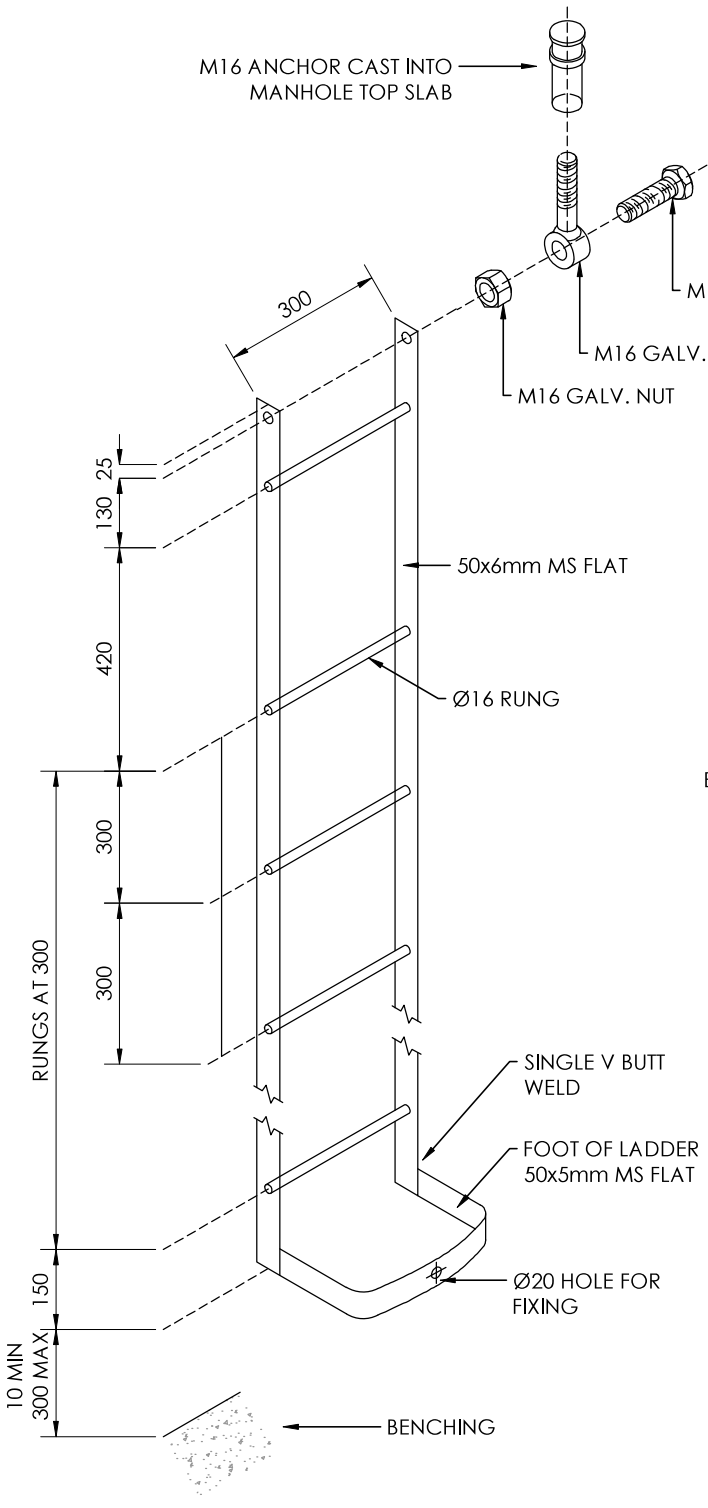
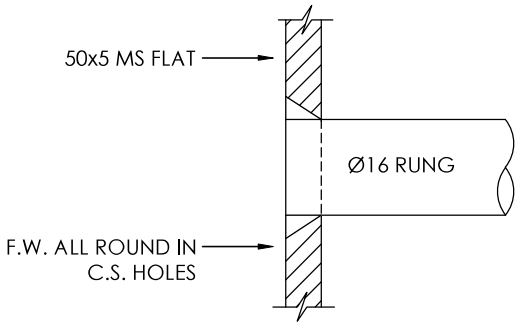
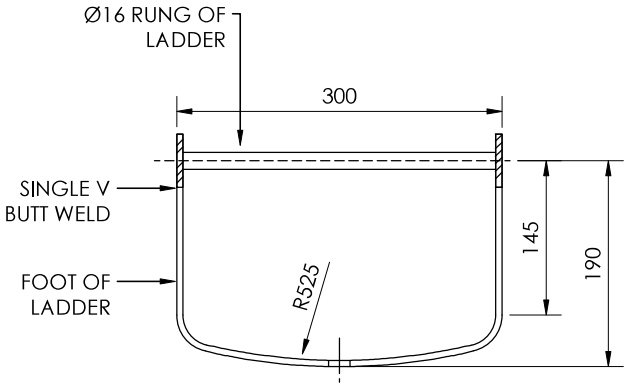


ISOMETRIC DIAGRAM OF LADDER



LADDER RUNG DETAIL



PLAN OF LADDER

NOTES:

1. **LADDERS ARE REQUIRED AS FOLLOWS (LENGTHS MEASURED BETWEEN SOFFIT OF MANHOLE SLAB AND BENCHING AT FOOT OF LADDER):**
   - **UP TO 750 - NO LADDER**
   - **751 TO 1050 - 1 RUNG AT 600 FROM SOFFIT**
   - **1060 UPWARDS - STANDARD LADDER**

   THE LADDER FOOT IS TO BE FIXED AS DETAILED IN ALL MANHOLES
2. **ALL LADDERS, BOLTS, NUTS ETC. SHALL BE HOT DIP GALVANISED AFTER FABRICATION**
3. **LADDER FOOT TO BE FIXED WITH EPOXY ADHESIVE OR M16 DYNOBOLT WHERE 50mm COVER IS AVAILABLE**
4. **NOT TO BE USED IN STORMWATER MANHOLES**

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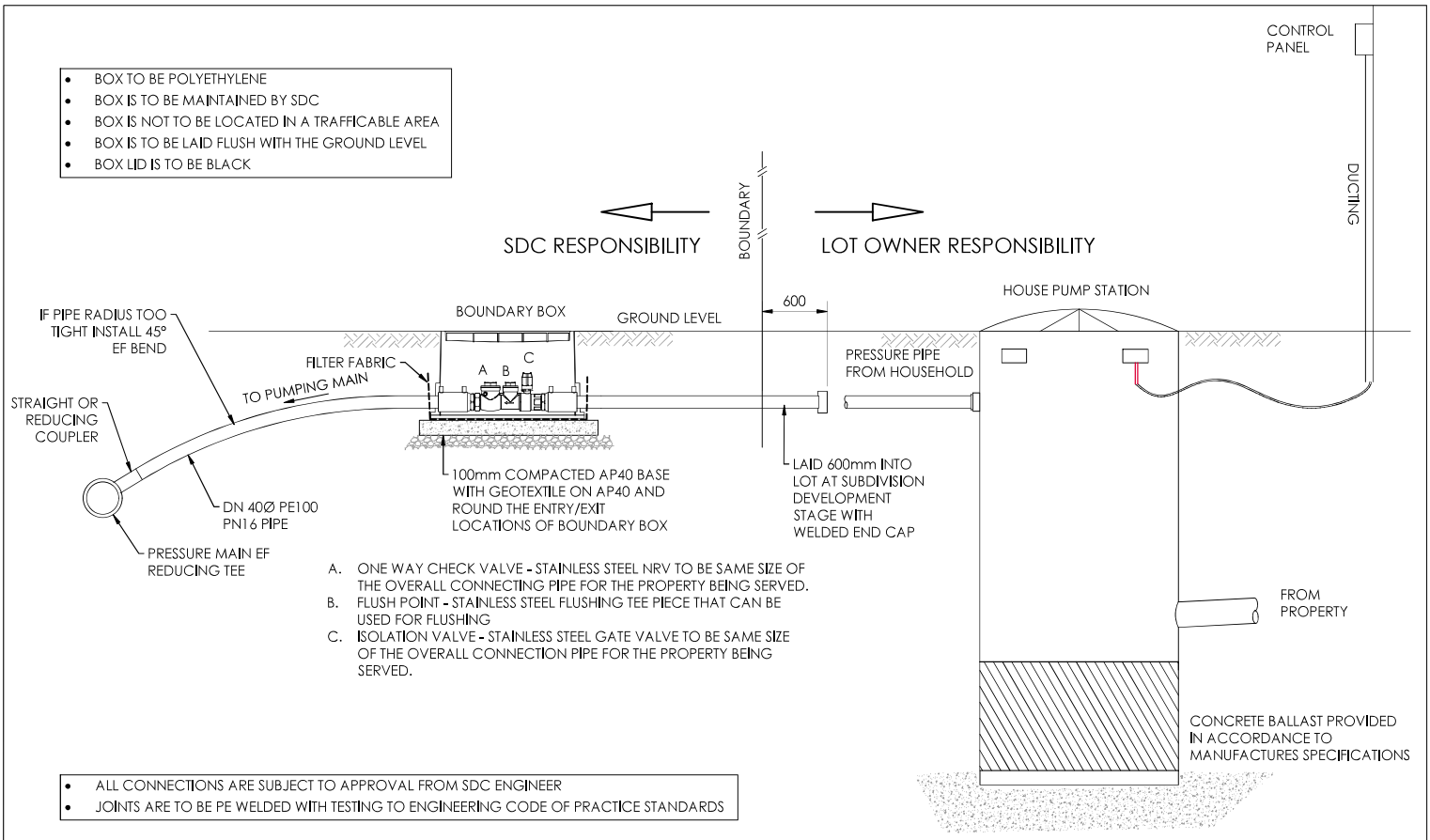
SEWER MANHOLE LADDER

STANDARD NO: DR 4.2

DATE: JAN 2023

SCALE: NTS

- BOX TO BE POLYETHYLENE
- BOX IS TO BE MAINTAINED BY SDC
- BOX IS NOT TO BE LOCATED IN A TRAFFICABLE AREA
- BOX IS TO BE LAID FLUSH WITH THE GROUND LEVEL
- BOX LID IS TO BE BLACK



A. ONE WAY CHECK VALVE - STAINLESS STEEL NRV TO BE SAME SIZE OF THE OVERALL CONNECTING PIPE FOR THE PROPERTY BEING SERVED.
B. FLUSH POINT - STAINLESS STEEL FLUSHING TEE PIECE THAT CAN BE USED FOR FLUSHING
C. ISOLATION VALVE - STAINLESS STEEL GATE VALVE TO BE SAME SIZE OF THE OVERALL CONNECTION PIPE FOR THE PROPERTY BEING SERVED.

- ALL CONNECTIONS ARE SUBJECT TO APPROVAL FROM SDC ENGINEER
- JOINTS ARE TO BE PE WELDED WITH TESTING TO ENGINEERING CODE OF PRACTICE STANDARDS

Selwyn DISTRICT COUNCIL

PRESSURE SEWER NON - TRAFFICABLE PROPERTY BOUNDARY KIT

STANDARD NO: DR 4.3
JAN 2023
SCALE: NTS