

NOTES:

1. GENERAL NOTES

- 1.1 THIS SET OF DRAWINGS DETAILS SEQ-SP'S REQUIREMENTS FOR METERING OF LARGE DOMESTIC AND FIRE SERVICES APPLICABLE FOR NEW DEVELOPMENTS, AS WELL AS ALTERATIONS AND REPLACEMENT OF EXISTING METERING ARRANGEMENTS.
- 1.2 THIS SET OF DRAWINGS IS TO BE READ IN CONJUNCTION WITH THE SEQ CODE AND OTHER RELEVANT STANDARDS INCLUDING AS/NZS 3500: NATIONAL PLUMBING AND DRAINAGE CODE.
- 1.3 THE WATER METERING ASSEMBLY ARRANGEMENTS CONTAINED WITHIN THIS SET OF DRAWINGS APPLY TO THE MAJORITY OF DEVELOPMENT PROPOSALS, AND HAVE BEEN DEVELOPED TO SIMPLIFY AND STANDARDISE METER ARRANGEMENT ASSEMBLIES FOR CUSTOMERS AND INDUSTRY. WHERE THESE DRAWINGS ARE INAPPROPRIATE FOR A PARTICULAR SITUATION, SEQ-SP SHALL BE CONSULTED AND WILL ADVISE OF THE NECESSARY REQUIREMENTS ON A CASE-BY-CASE BASIS.
- 1.4 WATER METER ASSEMBLY COMPONENTS AS INDICATED IN THIS SET OF SEQ STANDARD DRAWINGS SHALL BE PURCHASED AND SUPPLIED THROUGH SEQ-SP.
- 1.5 SEQ-SP OWNED WATER METER ASSEMBLY COMPONENTS AS INDICATED IN THIS SET OF SEQ STANDARD DRAWINGS SHALL BE MAINTAINED AND REPLACED PERIODICALLY AT NO COST TO THE OWNER UNLESS THE OWNER HAS ALTERED THE WATER METER SURROUNDS AND/OR IMPEDED ACCESSIBILITY TO THE WATER METER.
- 1.6 DESIGN AND CONSTRUCTION OF WATER METER ASSEMBLY ARRANGEMENTS WITHIN A BASEMENT REQUIRES PRIOR APPROVAL OF SEQ-SP. CoGC DO NOT PERMIT BASEMENT INSTALLATIONS.
- 1.7 DESIGN AND CONSTRUCTION OF WATER METER ASSEMBLY ARRANGEMENT SUPPORTS SHALL BE CERTIFIED BY A RELEVANT RPEQ ENGAGED BY THE CUSTOMER, AT THE CUSTOMER'S OWN COST.
- 1.8 DO NOT PAINT METER ASSEMBLIES OR PIPEWORK.

2. WATER METER SIZING

- 2.1 THE WATER METER SHALL BE APPROPRIATELY SIZED BY THE DESIGNER FOR THE TYPE OF DEVELOPMENT, INTENDED PURPOSE AND REQUIRED FLOW RATES.
- 2.2 THE METER AND ASSOCIATED ASSEMBLY SHALL NOT BE OVERSIZED FOR THE FLOW RATES TO BE METERED. THE METER SELECTED MUST HAVE A MINIMUM FLOW REGISTRATION FLOW RATE OF Q1<MINIMUM FLOW ANTICIPATED THROUGH THE METER, WHERE Q1 IS DEFINED BY NMI R49 AND LISTED ON THE METER MANUFACTURER'S DATA SHEET(S).
- 2.3 THE METER SHALL BE SIZED TO ACCURATELY MEASURE THE MAJORITY OF THE VOLUME TO BE METERED. THE METER SELECTED MUST GENERATE WATER VELOCITIES WHEREBY 95% OF THE VOLUME ANTICIPATED THROUGH THE METER OCCUR AT VELOCITIES BETWEEN THE METER'S Q2 AND Q3 ACCURACY BAND, WHERE Q2 AND Q3 ARE DEFINED BY NMI R49 AND LISTED ON THE METER MANUFACTURER'S DATA SHEET(S).
- 2.4 THE METER ASSEMBLY SIZING GUIDE PROVIDED IN THIS SET OF DRAWINGS IS FOR REFERENCE ONLY. CORRECT METER ASSEMBLY SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.
- 2.5 NOT ALL SEQ-SPs USE ALL METER SIZES LISTED IN THIS SET OF DRAWINGS.

3. WATER METER ASSEMBLY SELECTION

- 3.1 FOR THE DESIGN AND CONSTRUCTION OF A SINGLE DOMESTIC SERVICE LESS THAN 32mm NB IN SIZE, REFER TO SEQ CODE STANDARD DRAWING SETS SEQ-WAT-1106 TO SEQ-WAT-1110.
- 3.2 SEQ-WAT-1111-2
THIS METER ASSEMBLY ARRANGEMENT IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A SINGLE DOMESTIC SERVICE THAT IS 32mm NOMINAL BORE (NB) OR GREATER.
- 3.3 SEQ-WAT-1111-3
THIS METER ASSEMBLY ARRANGEMENT REQUIRES PRIOR SEQ-SP APPROVAL AND IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A SINGLE DOMESTIC SERVICE THAT IS 32mm NOMINAL BORE (NB) OR GREATER LOCATED WITHIN A BASEMENT.
NOTE: DRAWING NOT APPLICABLE TO CoGC AND LCC.FOR LCC REQUIREMENTS REFER TO DRAWINGS SEQ-WAT-1111-10 AND SEQ-WAT-1111-11.
- 3.4 SEQ-WAT-1111-4
THIS METER ASSEMBLY ARRANGEMENT IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A SINGLE DOMESTIC SERVICE THAT IS 32mm NOMINAL BORE (NB) OR GREATER AND INCLUDES THE ALLOWANCE FOR ULTRASONIC AND ELECTROMAGNETIC METER ASSEMBLIES.
NOTE: DRAWING NOT APPLICABLE TO LCC, RCC AND UU. FOR LCC REQUIREMENTS REFER TO DRAWINGS SEQ-WAT-1111-10 AND SEQ-WAT-1111-11.

3.5 SEQ-WAT-1111-5

THIS METER ASSEMBLY ARRANGEMENT REQUIRES PRIOR SEQ-SP APPROVAL AND IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A SINGLE DOMESTIC SERVICE THAT IS 32mm NOMINAL BORE (NB) OR GREATER LOCATED WITHIN A BASEMENT AND INCLUDES ALLOWANCE FOR ULTRASONIC AND ELECTROMAGNETIC METER ASSEMBLIES.
NOTE: DRAWING NOT APPLICABLE TO CoGC, LCC, RCC AND UU. FOR LCC REQUIREMENTS REFER TO DRAWINGS SEQ-WAT-1111-10 AND SEQ-WAT-1111-11.

3.6 SEQ-WAT-1111-6

THIS METER ASSEMBLY ARRANGEMENT IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A COMBINED DOMESTIC SERVICE (DN32 AND LARGER) AND FIRE SERVICE (DN100 AND LARGER), WHICH ARE METERED SEPARATELY AND NOT INSTALLED TO SERVICE A COMMUNITY TITLE SCHEME TOWNHOUSE STYLE DEVELOPMENT. SUBJECT TO PRIOR SEQ-SP APPROVAL, AN ALTERNATIVE TO SEQ-WAT-1111-6 MAY BE TO HAVE A SEPARATE FIRE SERVICE (REFER SEQ STANDARD DRAWINGS SEQ-WAT-1111-8 OR SEQ-WAT-1111-9 FOR DETAILS) AND DOMESTIC SERVICE (REFER TO SEQ CODE STANDARD DRAWING SEQ-WAT-1106 TO SEQ-WAT-1110, SEQ STANDARD DRAWING SEQ-WAT-1111-2 TO SEQ-WAT-1111-5) SERVICING THE PROPERTY FROM DIFFERENT POINTS ON THE WATER RETICULATION NETWORK.
NOTE: DRAWING NOT APPLICABLE TO LCC. FOR LCC REQUIREMENTS REFER TO DRAWING SEQ-WAT-1111-10 AND SEQ-WAT-1111-11.

3.7 SEQ-WAT-1111-7

THIS METER ASSEMBLY ARRANGEMENT REQUIRES PRIOR SEQ-SP APPROVAL AND IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A COMBINED DOMESTIC SERVICE (DN32 AND LARGER) AND FIRE SERVICE (DN100 AND LARGER), WHICH ARE SEPARATELY METERED AND LOCATED WITHIN A BASEMENT.
NOTE: DRAWING NOT APPLICABLE TO CoGC AND LCC. FOR LCC REQUIREMENTS REFER TO DRAWING SEQ-WAT-1111-10 AND SEQ-WAT-1111-11.

3.8 SEQ-WAT-1111-8

THIS METER ASSEMBLY ARRANGEMENT IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF EITHER:
a. A FIRE SERVICE (DN50 AND LARGER); OR
b. A COMBINED FIRE AND DOMESTIC SERVICE (DN50 AND LARGER) FOR A TOWNHOUSE STYLE COMMUNITY TITLE SCHEME DEVELOPMENT.
NOTE: DRAWING NOT APPLICABLE TO LCC. FOR LCC REQUIREMENTS REFER TO DRAWING SEQ-WAT-1111-10 AND SEQ-WAT-1111-11.

3.9 SEQ-WAT-1111-9

THIS METER ASSEMBLY ARRANGEMENT REQUIRES PRIOR SEQ-SP APPROVAL AND IS TO BE USED FOR THE DESIGN AND CONSTRUCTION OF A FIRE SERVICE (DN50 AND LARGER) LOCATED WITHIN A BASEMENT.
NOTE: DRAWING NOT APPLICABLE TO CoGC AND LCC. FOR LCC REQUIREMENTS REFER TO DRAWING SEQ-WAT-1111-10 AND SEQ-WAT-1111-11.

3.10 SEQ-WAT-1111-10

THIS METER ASSEMBLY ARRANGEMENT IS ONLY FOR THE USE OF LOGAN CITY COUNCIL AND IS FOR DN25 AND LARGER COMMERCIAL WATER SERVICE AND DN80 AND LARGER FIRE SERVICE.

3.11 SEQ-WAT-1111-11

THIS METER ASSEMBLY ARRANGEMENT IS ONLY FOR THE USE OF LOGAN CITY COUNCIL AND IS FOR LARGE METER ARRANGEMENT COMMERCIAL WATER SERVICE AND FIRE SERVICE BRACE DETAILS AND NOTES.

3.12 BASEMENT INSTALLATION

- a. A BASEMENT INSTALLATION WILL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT IS IMPRACTICAL.
- b. THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED NO LOWER THAN THE FIRST BASEMENT LEVEL.
- c. UNIMPEDED ACCESS TO THE METER MUST BE PROVIDED TO SEQ-SP, IN A MANNER ACCEPTED BY BOTH THE PROPERTY OWNER AND SEQ-SP.
- d. WATER METERS ARE REQUIRED TO BE READILY ACCESSIBLE FOR MAINTENANCE AND REPLACEMENT.
- e. WHERE THE METERS ARE NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND ACCESSIBLE AT ALL TIMES, ON THE GROUND FLOOR.
- f. AESTHETICS ALONE IS NOT AN ACCEPTABLE REASON FOR A METER ASSEMBLY ARRANGEMENT TO BE LOCATED WITHIN A BASEMENT.

4. PIPE MATERIALS

- 4.1 NON-METALLIC PIPES AND FITTINGS SHALL NOT FORM ANY PART OF A WATER METER ASSEMBLY.
- 4.2 SUBSTITUTION OF PIPE MATERIALS AND/OR FITTINGS SHOWN ON PLAN WITH ALTERNATE PIPE MATERIALS/FITTINGS IS NOT ACCEPTABLE WITHOUT PRIOR APPROVAL BY SEQ-SP.
- 4.3 PRIME, CAULK AND WRAP ALL BURIED FLANGES AND BOLTS WITH DENSO WRAPPING OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
- 4.4 DUCTILE IRON PIPEWORK SHALL BE THERMAL BONDED EPOXY COATED TO AS 4158.
- 4.5 COPPER SERVICE PIPEWORK SHALL BE CONTINUOUS COPPER TO AS 1432. ALL COPPER ALLOY FITTINGS MUST BE DEZINCIFICATION RESISTANT AND COMPLY WITH AS 3688. COMPRESSION AND CRIMPED FITTINGS SHALL NOT BE USED WITH COPPER SERVICES. LCC PERMITS THE USE OF COMPRESSION AND CRIMPED FITTINGS WITH COPPER SERVICES.

5. WATER METER OWNERSHIP

- 5.1 OWNERSHIP OF WATER METER ASSEMBLY COMPONENTS SHALL BE AS INDICATED IN THIS SET OF SEQ STANDARD DRAWINGS.
- 5.2 ASSEMBLY DETAIL DOWNSTREAM OF SEQ-SP OWNED COMPONENTS IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS INTERNAL PLUMBING.

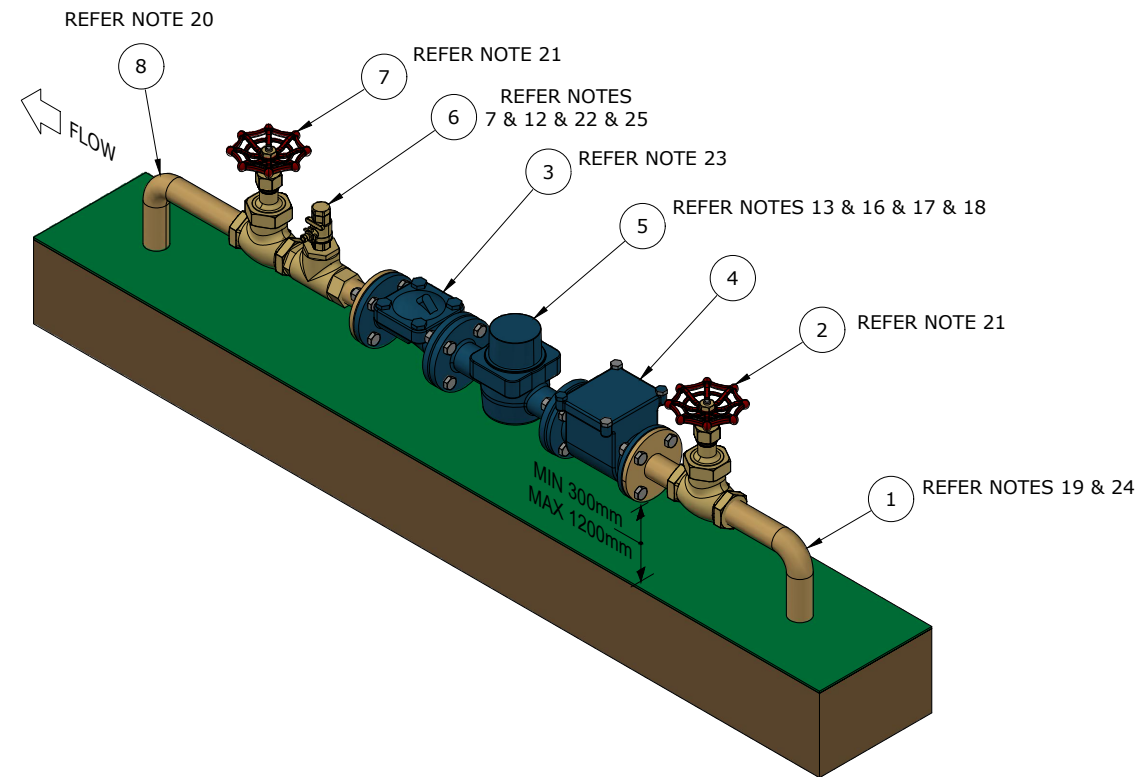
6. INSTALLATION

- 6.1 ALL WATER SERVICES SHALL HAVE APPROVED WATER METER/S INSTALLED TO MEASURE THE VOLUME OF WATER SUPPLIED THROUGH THE PROPERTY SERVICE.
- 6.2 PROVIDE ADEQUATE SPACE AROUND THE WATER METER ARRANGEMENT FOR METER READING, AS WELL AS MAINTENANCE AND REPLACEMENT OF THE METER (AND ASSOCIATED FITTINGS) MINIMUM OF 300mm.
- 6.3 ABOVE GROUND METER INSTALLATIONS SHALL BE ACCESSIBLE TO SEQ-SP PERSONNEL AT ALL TIMES FOR READING, MAINTENANCE AND REPLACEMENT ACTIVITIES.
- 6.4 PREFERABLY WATER METER ARRANGEMENTS INSTALLED WITHIN BASEMENTS SHALL BE ACCESSIBLE TO SEQ-SP PERSONNEL AT ALL TIMES FOR READING, MAINTENANCE AND REPLACEMENT ACTIVITIES. WHERE UNINTERRUPTED ACCESS TO THE WATER METER ASSEMBLY ARRANGEMENT IS NOT POSSIBLE, A REMOTE METER READER SHALL BE CONNECTED TO THE WATER METER ASSEMBLY AND BE ACCESSIBLE TO SEQ-SP PERSONNEL AT ALL TIMES, AT GROUND LEVEL.
- 6.5 REMOTE READING DEVICES ARE NOT PERMITTED TO BE FITTED TO SEQ WATER METERS WITHOUT PRIOR WRITTEN CONSENT BY SEQ-SP. SEQ-SP'S WRITTEN CONSENT SHALL INCLUDE A LIST OF CONDITIONS WHICH SHALL BE SATISFIED. FOR FURTHER DETAILS PLEASE CONTACT SEQ-SP.
- 6.6 WHERE A WATER METER IS REQUIRED TO BE CONNECTED TO AN AUTOMATIC METER READING SYSTEM, THE OWNER IS RESPONSIBLE TO ARRANGE AND INSTALL AN APPROVED SEQ AMR SYSTEM.
- 6.7 TYPICALLY A SINGLE WATER CONNECTION SHALL BE PROVIDED TO SERVICE THE ENTIRE DEVELOPMENT. WHERE MULTIPLE WATER CONNECTIONS TO SERVICE THE DEVELOPMENT ARE PROPOSED, SEQ-SP SHALL BE CONSULTED FOR APPROVAL.
- 6.8 DESIGN AND CONSTRUCT SUITABLE SUPPORT FOR METER ASSEMBLY ARRANGEMENT (AS REQUIRED).
- 6.9 WHERE SERVICE PIPE IS TO BE CONCRETE ENCASED, THE SERVICE PIPE SHALL BE TAPED WITH ABELFLEX (OR EQUIVALENT) AND HAVE AT LEAST 6mm RADIAL CLEARANCE BETWEEN THE SERVICE PIPE AND THE CONCRETE ENCASEMENT.
- 6.10 SAFETY BOLLARDS MAY BE REQUIRED TO BE INSTALLED IN SOME CASES, AS DIRECTED BY SEQ-SP.

7. WATER SERVICES ≥ DN100

- 7.1 BEND FITTINGS SHALL HAVE FLANGED ENDS.
- 7.2 WATER SERVICES FROM MAINS IN THE ADJOINING FOOTPATH SHALL BE CONSTRUCTED USING FLANGE CONNECTIONS.

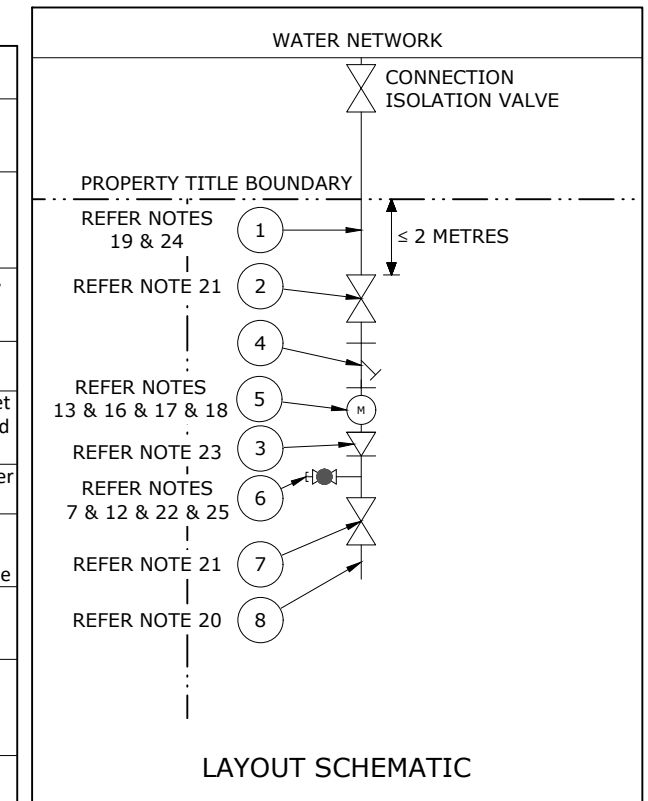
REV. No.	DATE	DESCRIPTION	AUTH.	SEQ WATER SERVICE PROVIDERS		WATER SUPPLY STANDARD DRAWING				CoGC	LCC	RCC	UU	UW	
				NOT FOR CONSTRUCTION <small>WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION</small> <small>SEQ-SPs ACCEPT NO LIABILITY FOR THE USE OF TYPICAL DRAWINGS, WHICH MUST BE ADAPTED TO THE REQUIREMENTS OF THE PARTICULAR SYSTEM OR NETWORK AND ACCOMPANIED BY DETAILED DESIGNS CERTIFIED BY AN RPEQ</small>		LARGE METER ARRANGEMENT DESIGN PLAN NOTES				DRAWING No.					VERSION
										SEQ-WAT-1111-1					A
										NOT TO SCALE			ORG DATE: 01/02/24		



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS ONLY APPLICABLE FOR DN32 AND LARGER DOMESTIC WATER SERVICE CONNECTIONS.
2. THE METER SIZING GUIDE PROVIDED IN THIS DRAWING IS FOR REFERENCE ONLY. CORRECT METER SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.
3. THIS METER ASSEMBLY ARRANGEMENT IS ONLY TO BE LOCATED WITHIN PRIVATE PROPERTY. THE 32mm (40mm FOR CoGC) METER ASSEMBLY ARRANGEMENT MAY ALSO BE LOCATED OUTSIDE OF PRIVATE PROPERTY AND UNDERGROUND, SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
4. THE START OF THE METER ASSEMBLY MUST BE LOCATED WITHIN TWO METRES OF THE FRONT PROPERTY TITLE BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES.
5. THE PROPERTY SERVICE AND METER ASSEMBLY SHALL BE LOCATED AT LEAST 1.0m FROM ALL ELECTRICAL SOURCES AND AT LEAST 600mm HORIZONTALLY CLEAR OF EXISTING OR FUTURE DRIVEWAYS, FENCES AND STRUCTURES. ANY OTHER ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
6. WATER METER ASSEMBLY SHALL HAVE A MINIMUM 300mm VERTICAL CLEARANCE FROM FINISHED SURFACE LEVEL TO UNDERSIDE OF FLANGE (AS SHOWN).
7. ASSEMBLY DETAIL DOWNSTREAM OF TEE & TESTING PORT (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS PRIVATE PLUMBING. FOR UU ACCEPTANCE OF METER ASSEMBLY REQUIRES BACKFLOW PREVENTION DEVICE AND ISOLATION VALVE BE INSTALLED WITHIN 5M OF PIPE LENGTH DOWNSTREAM OF THE WATER METER, AND THE BACKFLOW PREVENTION DEVICE MUST BE IN ACCORDANCE WITH AS 3500 AND BE AT LEAST A TESTABLE SINGLE CHECK VALVE.
8. SERVICE PIPE SMALLER THAN DN100 SHALL BE CONTINUOUS COPPER TO AS 1432.
9. PE PIPE SHALL NOT BE INSTALLED ABOVE GROUND.
10. THE ARRANGEMENT SHOWN ON THIS DRAWING ILLUSTRATES A DN50 SERVICE ARRANGEMENT. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS FOR ALL FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
11. REFER TO SEQ STANDARD DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.
12. ITEM 6 IS NOT REQUIRED FOR LCC.
13. CoGC REQUIRES 5U/3D STRAIGHT PIPES FOR MECHANICAL METERS AS PER METER MANUFACTURER'S REQUIREMENTS. REFER SEQ-WAT-1111-4 OR SEQ-WAT-1111-8 FOR STRAIGHT PIPE DETAILS.
14. FOR CoGC, ALL ITEMS ARE TO BE SUPPLIED BY CUSTOMER.
15. THE ITEMS OWNED BY RCC ARE SUPPLIED THROUGH RCC.
16. CoGC DOES NOT USE 32mm OR 80mm METERS.
17. RCC DOES NOT ACCEPT DN100 SERVICE WITH 80mm METER.
18. UU DOES NOT ACCEPT 40mm METER.
19. FOR CoGC, IF ITEM 1 IS CONSTRUCTED THROUGH A BASEMENT TO AN ABOVE GROUND ASSEMBLY ITEM 1 SHALL BE OWNED AND MAINTAINED BY THE CUSTOMER.
20. ITEM 8 IS SUPPLIED AND OWNED BY LCC.
21. FOR LCC, VALVE ARRANGEMENT AS PER DRAWING SEQ-WAT-1111-10.
22. FOR UW, ITEM 6 IS SUPPLIED BY CUSTOMER.
23. FOR UU, ITEM 3 TO BE FITTED UPSTREAM STRAINER ITEM 4.
24. FOR UU, ITEM 1 IS SUPPLIED AND OWNED BY CUSTOMER.
25. FOR UU, ITEM 6 IS OWNED BY UU.

ITEM	FITTING	SUPPLIED BY (REFER NOTES 14 & 15)	OWNERSHIP	DESCRIPTION						
				DN32 service * Length approx 0.5m	DN40 service * Length approx 0.5m	DN50 service Length approx 1m	DN100 service (with 80mm meter) Length approx 1.1m	DN100 service (with 100mm meter) Length approx 1.3m	DN150 service Length approx 1.5m	DN200 service Length approx 1.7m
1	Service Pipe and 90° Bend	SEQ-SP (Refer Note 24)	SEQ-SP (Refer Note 24)	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN40 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
2	Isolation Valve	SEQ-SP	SEQ-SP	DN32 BSP Brass Ball / Globe Valve	DN40 BSP Brass Ball / Globe Valve	DN50 BSP Brass Ball / Globe Valve	DN100 FI-FI Gate Valve, thermal bonded epoxy coated ##	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN150 FI-FI Gate Valve, thermal bonded epoxy coated	DN200 FI-FI Gate Valve, thermal bonded epoxy coated
3	Non Return Valve	SEQ-SP	SEQ-SP	**	**	DN50 FI-FI Swing check valve	DN80 FI-FI Swing check valve	DN100 FI-FI Swing check valve	DN150 FI-FI Swing check valve	DN200 FI-FI Swing check valve
4	Strainer	SEQ-SP	SEQ-SP	**	**	DN50 FI-FI in-line basket strainer, thermal bonded epoxy coated	DN80 FI-FI in-line basket strainer, thermal bonded epoxy coated	DN100 FI-FI in-line basket strainer, thermal bonded epoxy coated	DN150 FI-FI in-line basket strainer, thermal bonded epoxy coated	DN200 FI-FI in-line basket strainer, thermal bonded epoxy coated
5	Water Meter	SEQ-SP	SEQ-SP	32mm mechanical meter (refer Note 2)	40mm mechanical meter (refer Note 2)	50mm mechanical meter (refer Note 2)	80mm mechanical meter (refer Note 2)	100mm mechanical meter (refer Note 2)	150mm mechanical meter (refer Note 2)	200mm mechanical meter (refer Note 2)
6	Tee & Testing Port	SEQ-SP (Refer Notes 12 & 22)	Customer (Refer Notes 12 & 25)	DN32 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN40 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN50 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN80 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN100 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN150 FI-FI 316SS with DN25 tapping and DN25 BSP brass ball valve	DN200 FI-FI 316SS with DN25 tapping and DN25 BSP brass ball valve
7	Customer Isolation Valve	Customer (Refer Note 21)	Customer (Refer Note 21)	BSP Brass Ball/Globe Valve	BSP Brass Ball/Globe Valve	Brass Ball/Globe Valve	Brass Ball/Globe Valve	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated
8	Service Pipe and 90° Bend	Customer (Refer Note 20)	Customer (Refer Note 20)	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN40 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
NA	Meter sizing guide - Number of dwellings serviced	NA	NA	7 - 21		22 -89	90 - 300	301 - 500	501 - 800	> 800

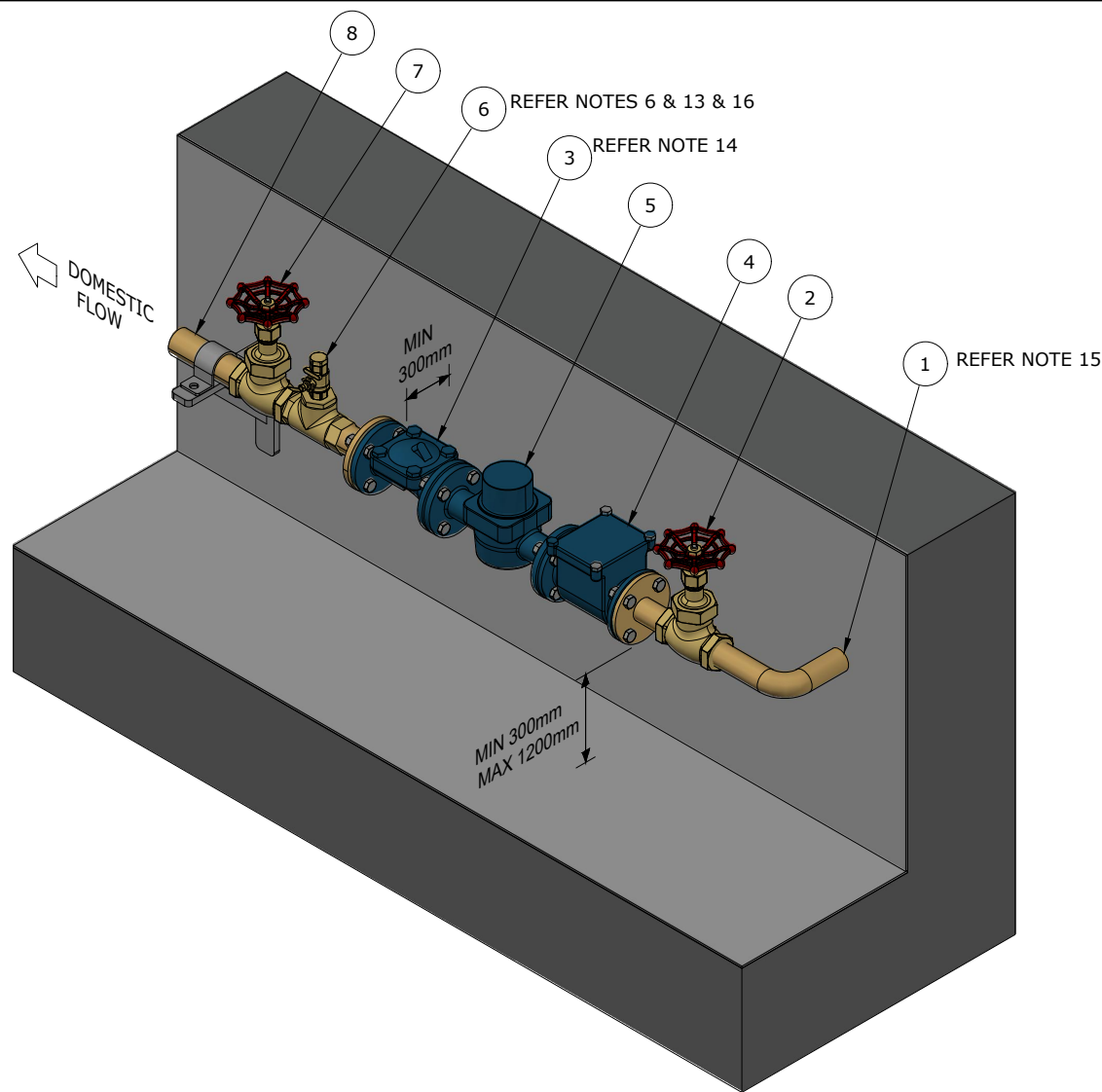


DN100/80 FL-FL REDUCER (THERMAL BONDED EPOXY) TO BE INSTALLED ON DOWNSTREAM SIDE OF ISOLATION VALVE (ITEM 2).

* CUSTOMER TO SUPPLY DN32 AND DN40 WATER METER ASSEMBLY WHEN USED AS A DOMESTIC SERVICE ONLY.

** WHERE DN32 AND DN40 WATER METERS DO NOT INCORPORATE INTEGRAL FLOW RESTRICTER VALVES AND/OR STRAINER, EXTERNAL NON RETURN VALVE AND/OR STRAINER TO BE INSTALLED.

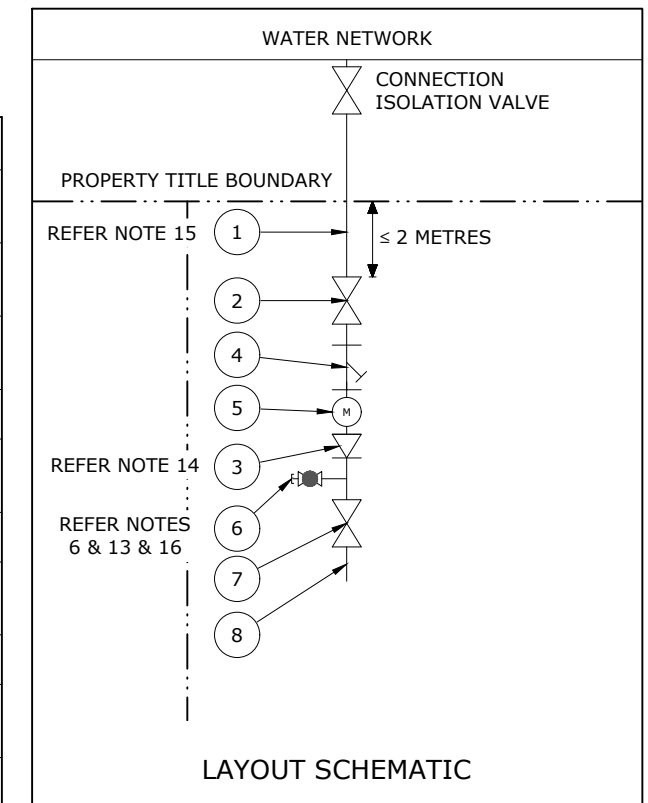
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				NOT FOR CONSTRUCTION				SEQ-WAT-1111-2				A
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NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS ONLY APPLICABLE FOR DN32 AND LARGER DOMESTIC WATER SERVICE CONNECTIONS LOCATED WITHIN THE FIRST FLOOR OF A BASEMENT, WITHIN PRIVATE PROPERTY. THIS ARRANGEMENT SHALL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT LOCATION IS IMPRACTICAL, AND IS SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
2. THE METER SIZING GUIDE PROVIDED IN THIS DRAWING IS FOR REFERENCE ONLY. CORRECT METER SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.
3. THIS METER ASSEMBLY ARRANGEMENT IS ONLY TO BE LOCATED WITHIN PRIVATE PROPERTY. THE 32mm METER ASSEMBLY ARRANGEMENT MAY ALSO BE LOCATED OUTSIDE OF PRIVATE PROPERTY AND UNDERGROUND, SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
4. THE START OF THE METER ASSEMBLY SHALL BE LOCATED WITHIN TWO METERS OF THE FRONT PROPERTY TITLE BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. ALTERNATIVELY, IF THE METER IS NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND ACCESSIBLE AT GROUND LEVEL AT ALL TIMES.
5. WATER METER ASSEMBLY SHALL HAVE 300 - 1200mm VERTICAL CLEARANCE FROM BASEMENT FLOOR TO UNDERSIDE OF FLANGE, AND MINIMUM 300mm HORIZONTAL CLEARANCE FROM BASEMENT WALL TO OUTERMOST PROJECTION OF FLANGE (AS SHOWN). WHERE SERVICE PIPE (ITEM 1) IS FLANGED, THE MINIMUM HORIZONTAL CLEARANCE BETWEEN THE BASEMENT WALL AND THE SERVICE PIPE INSIDE FACE OF FLANGE SHALL BE 300mm.
6. ASSEMBLY DETAIL DOWNSTREAM OF TEE & TESTING PORT (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS PRIVATE PLUMBING. FOR UU ACCEPTANCE OF METER ASSEMBLY REQUIRES BACKFLOW PREVENTION DEVICE AND ISOLATION VALVE BE INSTALLED WITHIN 5M OF PIPE LENGTH DOWNSTREAM OF THE WATER METER, AND THE BACKFLOW PREVENTION DEVICE MUST BE IN ACCORDANCE WITH AS 3500 AND BE AT LEAST A TESTABLE SINGLE CHECK VALVE.
7. SERVICE PIPE SMALLER THAN DN100 SHALL BE CONTINUOUS COPPER TO AS 1432.
8. THE ARRANGEMENT SHOWN ON THIS DRAWING ILLUSTRATES A DN50 SERVICE ARRANGEMENT. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS FOR ALL FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
9. REFER TO SEQ STANDARD DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.
10. RCC DOES NOT ACCEPT DN100 SERVICE WITH 80mm METER.
11. UU DOES NOT ACCEPT 40mm METER.
12. THE ITEMS OWNED BY RCC ARE SUPPLIED THROUGH RCC.
13. FOR UW, ITEM 6 IS SUPPLIED BY CUSTOMER.
14. FOR UU, ITEM 3 TO BE FITTED UPSTREAM STRAINER ITEM 4.
15. FOR UU, ITEM 1 IS SUPPLIED BY CUSTOMER.
16. FOR UU, ITEM 6 IS OWNED BY UU.

ITEM	FITTING	SUPPLIED BY (Refer Note 12)	OWNERSHIP	DESCRIPTION						
				DN32 service* Length approx 0.5m	DN40 service* Length approx 0.5m	DN50 service Length approx 1m	DN100 service (with 80mm meter) Length approx 1.1m	DN100 service (with 100mm meter) Length approx 1.3m	DN150 service Length approx 1.5m	DN200 service Length approx 1.7m
1	Service Pipe and 90° Bend	SEQ-SP (Refer Note 15)	Customer	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN40 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
2	Isolation Valve	SEQ-SP	SEQ-SP	DN32 BSP Brass Ball/Globe Valve	DN40 BSP Brass Ball/Globe Valve	DN50 BSP Brass Ball/Globe Valve	DN100 FI-FI Gate Valve, thermal bonded epoxy coated ##	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN150 FI-FI Gate Valve, thermal bonded epoxy coated	DN200 FI-FI Gate Valve, thermal bonded epoxy coated
3	Non Return Valve	SEQ-SP	SEQ-SP	**	**	DN50 FI-FI swing check valve	DN80 FI-FI swing check valve	DN100 FI-FI swing check valve	DN150 FI-FI swing check valve	DN200 FI-FI swing check valve
4	Strainer	SEQ-SP	SEQ-SP	**	**	DN50 FI-FI in-line basket strainer, thermal bonded epoxy coated	DN80 FI-FI in-line basket strainer, thermal bonded epoxy coated	DN100 FI-FI in-line basket strainer, thermal bonded epoxy coated	DN150 FI-FI in-line basket strainer, thermal bonded epoxy coated	DN200 FI-FI in-line basket strainer, thermal bonded epoxy coated
5	Water Meter	SEQ-SP	SEQ-SP	32mm mechanical meter (refer Note 2)	40mm mechanical meter (refer Note 2)	50mm mechanical meter (refer Note 2)	80mm mechanical meter (refer Note 2)	100mm mechanical meter (Note 2)	150mm mechanical meter (Note 2)	200mm mechanical meter (Note 2)
6	Tee & Testing Port	SEQ-SP (Refer Note 13)	Customer (Refer Note 16)	DN32 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN40 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN50 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN80 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN100 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN150 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN200 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve
7	Customer Isolation Valve	Customer	Customer	BSP Brass Ball/Globe Valve	BSP Brass Ball/Globe Valve	Brass Ball/Globe Valve	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated
8	Service Pipe	Customer	Customer	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN40 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
NA	Meter sizing guide - Number of dwellings serviced	NA	NA	7 - 21		22 - 89	90 - 300	301 - 500	501 - 800	> 800

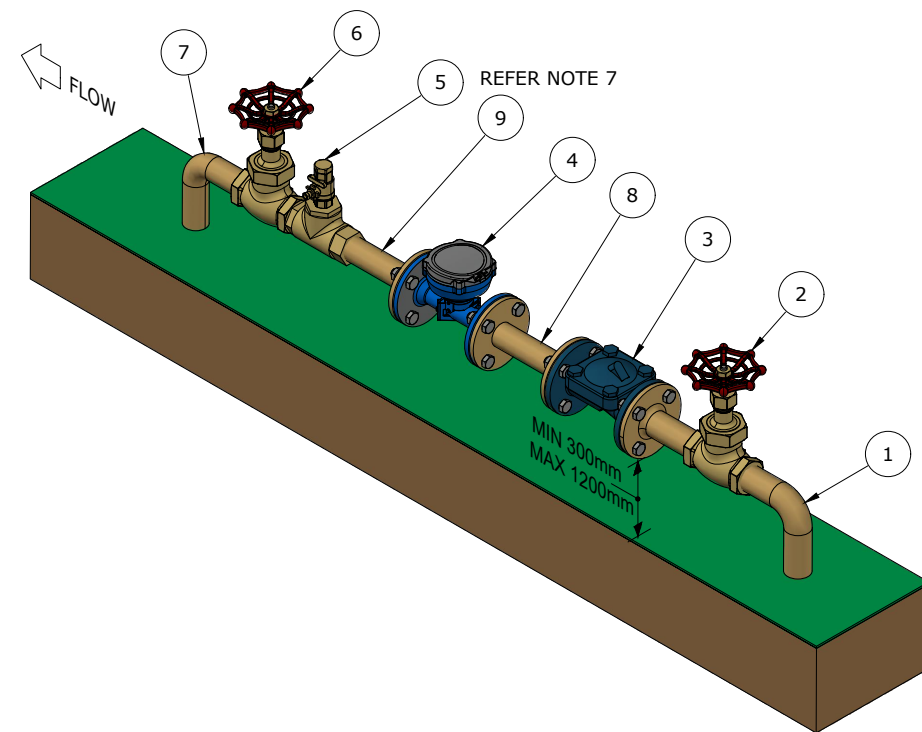


DN100/80 FL-FL REDUCER (THERMAL BONDED EPOXY) TO BE INSTALLED ON DOWNSTREAM SIDE OF ISOLATION VALVE (ITEM 2).

* CUSTOMER TO SUPPLY DN32 AND DN40 WATER METER ASSEMBLY WHEN USED AS A DOMESTIC SERVICE ONLY.

** WHERE DN32 AND DN40 WATER METERS DO NOT INCORPORATE INTEGRAL FLOW RESTRICTER VALVES AND/OR STRAINER, EXTERNAL NON RETURN VALVE AND/OR STRAINER TO BE INSTALLED.

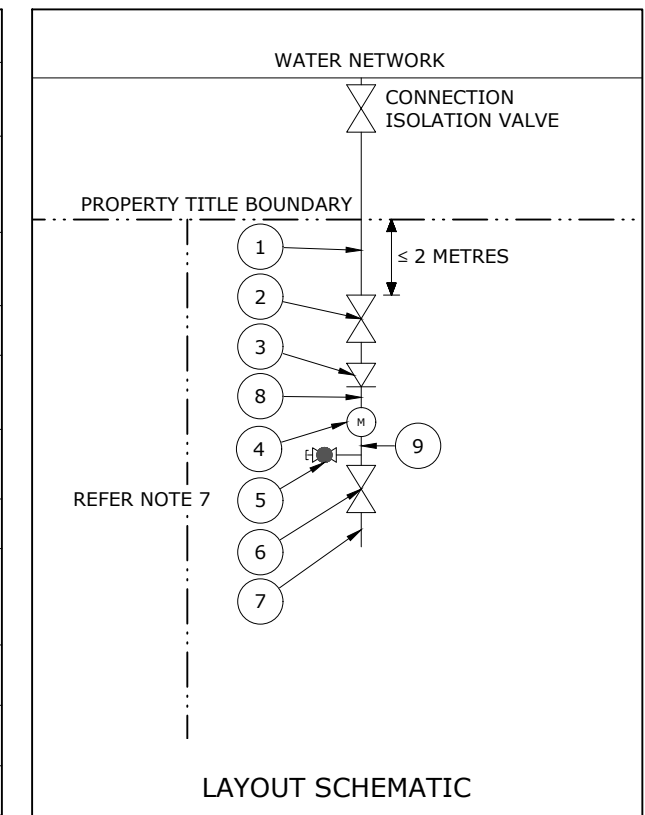
REV. No.	DATE	DESCRIPTION	AUTH.	SEQ WATER SERVICE PROVIDERS		WATER SUPPLY STANDARD DRAWING		CoGC	LSC	RCC	UU	UW
				WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION		LARGE METER ARRANGEMENT DN32 AND LARGER DOMESTIC SERVICE FOR BASEMENT INSTALLATION WITH MECHANICAL METER		DRAWING No.		SEQ-WAT-1111-3		VERSION
				NOT FOR CONSTRUCTION						NOT TO SCALE		ORG DATE: 01/02/24
				SEQ-SPs ACCEPT NO LIABILITY FOR THE USE OF TYPICAL DRAWINGS, WHICH MUST BE ADAPTED TO THE REQUIREMENTS OF THE PARTICULAR SYSTEM OR NETWORK AND ACCOMPANIED BY DETAILED DESIGNS CERTIFIED BY AN RPEQ								A



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS ONLY APPLICABLE FOR DN32 AND LARGER DOMESTIC WATER SERVICE CONNECTIONS.
2. THE METER SIZING GUIDE PROVIDED IN THIS DRAWING IS FOR REFERENCE ONLY. CORRECT METER SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.
3. THIS METER ASSEMBLY ARRANGEMENT IS ONLY TO BE LOCATED WITHIN PRIVATE PROPERTY. THE 32mm METER ASSEMBLY ARRANGEMENT MAY ALSO BE LOCATED OUTSIDE OF PRIVATE PROPERTY AND UNDERGROUND, SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
4. THE START OF THE METER ASSEMBLY MUST BE LOCATED WITHIN TWO METRES OF THE FRONT PROPERTY TITLE BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES.
5. THE PROPERTY SERVICE AND METER ASSEMBLY SHALL BE LOCATED AT LEAST 1.0m FROM ALL ELECTRICAL SOURCES AND AT LEAST 600mm HORIZONTALLY CLEAR OF EXISTING OR FUTURE DRIVEWAYS, FENCES AND STRUCTURES. ANY OTHER ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
6. WATER METER ASSEMBLY SHALL HAVE A MINIMUM 300mm VERTICAL CLEARANCE FROM FINISHED SURFACE LEVEL TO UNDERSIDE OF FLANGE (AS SHOWN).
7. ASSEMBLY DETAIL DOWNSTREAM OF TEE & TESTING PORT (ITEM 5) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS PRIVATE PLUMBING.
8. SERVICE PIPE SMALLER THAN DN100 SHALL BE CONTINUOUS COPPER TO AS 1432.
9. PE PIPE SHALL NOT BE INSTALLED ABOVE GROUND.
10. THE ARRANGEMENT SHOWN ON THIS DRAWING ILLUSTRATES A DN50 SERVICE ARRANGEMENT. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS FOR ALL FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
11. REFER TO SEQ STANDARD DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.

ITEM	FITTING	SUPPLIED BY	OWNERSHIP	DESCRIPTION						
				DN32 service * Length approx 0.5m	DN40 service * Length approx 0.5m	DN50 service Length approx 1m	DN100 service (with 80mm meter) Length approx 1.1m	DN100 service (with 100mm meter) Length approx 1.3m	DN150 service Length approx 1.5m	DN200 service Length approx 1.7m
1	Service Pipe and 90° Bend	SEQ-SP	SEQ-SP	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN40 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
2	Isolation Valve	SEQ-SP	SEQ-SP	DN32 BSP Brass Ball / Globe Valve	DN40 BSP Brass Ball / Globe Valve	DN50 BSP Brass Ball / Globe Valve	DN100 FI-FI Gate Valve, thermal bonded epoxy coated ##	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN150 FI-FI Gate Valve, thermal bonded epoxy coated	DN200 FI-FI Gate Valve, thermal bonded epoxy coated
3	Non Return Valve	SEQ-SP	SEQ-SP	**	**	DN50 FI-FI swing check valve	DN80 FI-FI swing check valve	DN100 FI-FI swing check valve	DN150 FI-FI swing check valve	DN200 FI-FI swing check valve
4	Water Meter	SEQ-SP	SEQ-SP	32mm ultrasonic / electromagnetic meter (refer Note 2)	40mm ultrasonic / electromagnetic meter (refer Note 2)	50mm ultrasonic / electromagnetic meter (refer Note 2)	80mm ultrasonic / electromagnetic meter (refer Note 2)	100mm ultrasonic / electromagnetic meter (refer Note 2)	150mm ultrasonic / electromagnetic meter (refer Note 2)	200mm ultrasonic / electromagnetic meter (refer Note 2)
5	Tee & Testing Port	Customer	Customer	DN32 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN40 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN50 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN80 FI-FI with DN25 tapping and DN25 BSP Brass Ball Valve ##	DN100 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN150 FI-FI 316SS with DN25 tapping and DN25 BSP brass ball valve	DN200 FI-FI 316SS with DN25 tapping and DN25 BSP brass ball valve
6	Customer Isolation Valve	Customer	Customer	BSP Brass Ball/Globe Valve	BSP Brass Ball/Globe Valve	Brass Ball/Globe Valve	Brass Ball/Globe Valve	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated
7	Service Pipe and 90° Bend	Customer	Customer	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN40 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
8	Pipe (5D)	SEQ-SP	SEQ-SP	DN32 FI-FI 316SS, 160mm long	DN40 FI-FI 316SS, 200mm long	DN50 FI-FI 316SS, 250mm long	DN80 FI-FI 316SS, 400mm long	DN100 FI-FI 316SS, 500mm long	DN150 FI-FI 316SS, 750mm long	DN200 FI-FI 316SS, 1000mm long
9	Pipe (3D)	SEQ-SP	SEQ-SP	DN32 FI-FI 316SS, 100mm long	DN40 FI-FI 316SS, 120mm long	DN50 FI-FI 316SS, 150mm long	DN80 FI-FI 316SS, 240mm long	DN100 FI-FI 316SS, 300mm long	DN150 FI-FI 316SS, 450mm long	DN200 FI-FI 316SS, 600mm long
NA	Meter sizing guide - Number of dwellings serviced	NA	NA	7 - 21		22 - 89	90 - 300	301 - 500	501 - 800	> 800



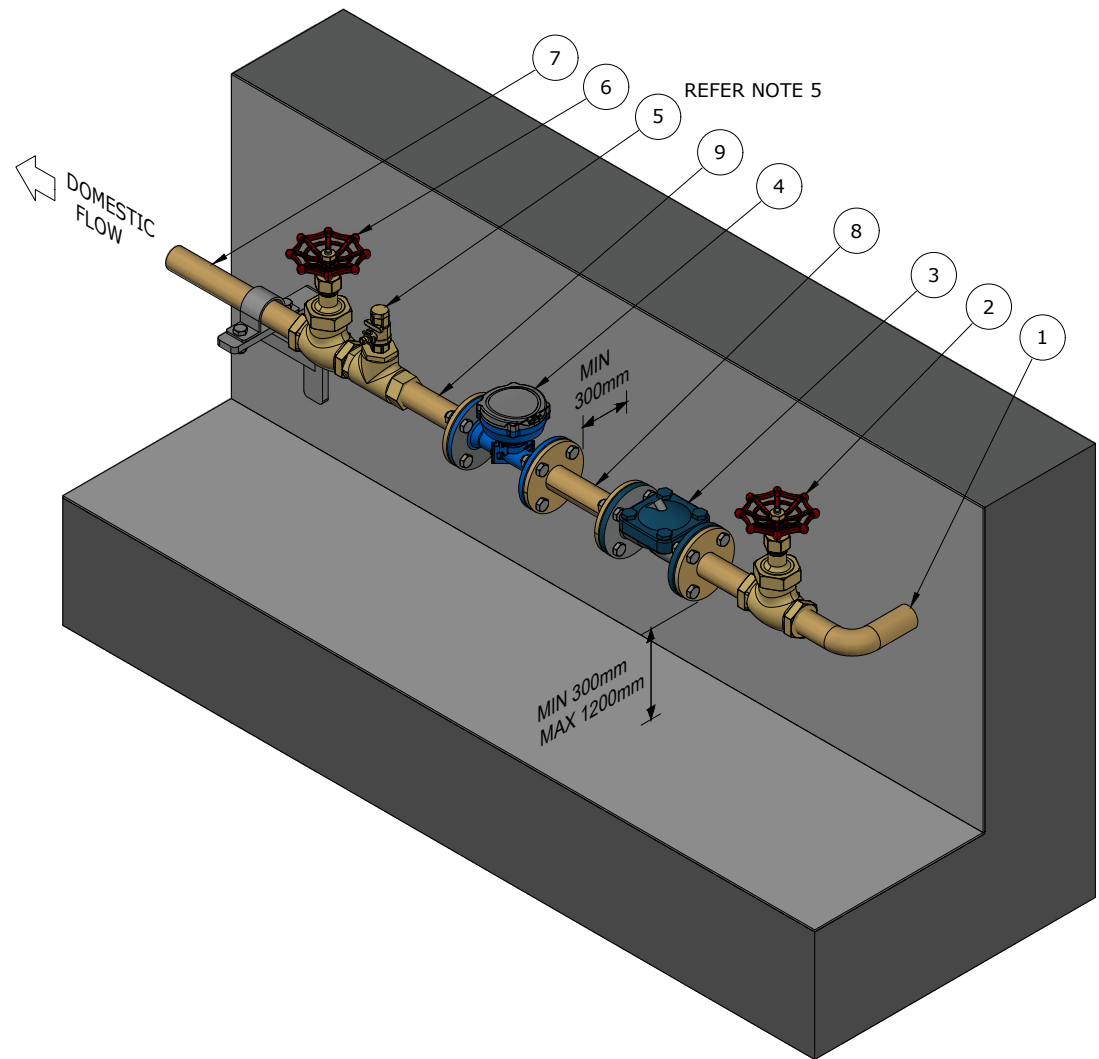
DN100/80 FL-FL REDUCER (THERMAL BONDED EPOXY) TO BE INSTALLED ON DOWNSTREAM SIDE OF ISOLATION VALVE (ITEM 2 AND ITEM 5).

* CUSTOMER TO SUPPLY DN32 AND DN40 WATER METER ASSEMBLY WHEN USED AS A DOMESTIC SERVICE ONLY.

** WHERE DN32 AND DN40 WATER METERS DO NOT INCORPORATE INTEGRAL FLOW RESTRICTOR VALVES AND/OR STRAINER, EXTERNAL NON RETURN VALVE AND/OR STRAINER TO BE INSTALLED.

NOTE: THIS DRAWING IS NOT APPLICABLE TO CoGC EXCEPT THE 5U / 3D STRAIGHT PIPE DETAILS WHICH WILL BE USED FOR DOMESTIC MECHANICAL METERS. REFER SEQ-WAT-1111-2.

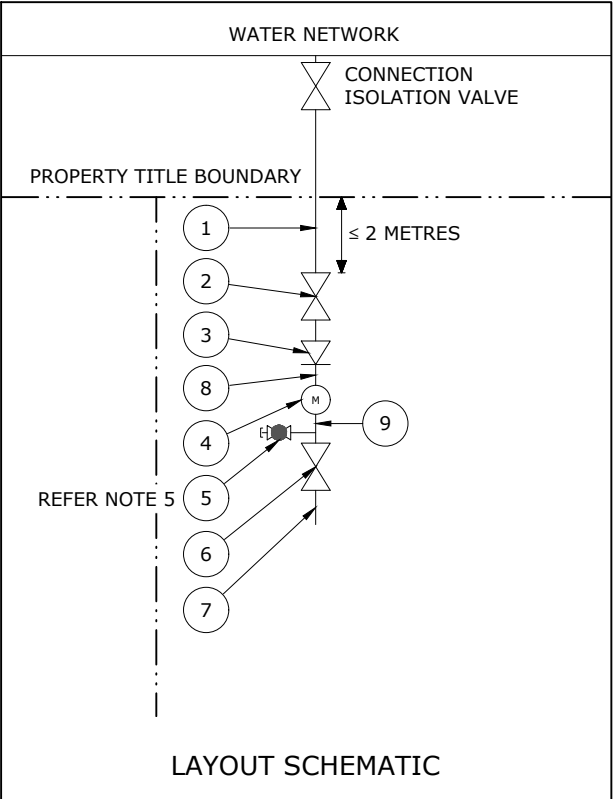
REV. No.	DATE	DESCRIPTION	AUTH.	<p align="center">SEQ WATER SERVICE PROVIDERS</p> <p align="center">WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION</p> <p align="center">NOT FOR CONSTRUCTION</p> <p align="center">SEQ-SPs ACCEPT NO LIABILITY FOR THE USE OF TYPICAL DRAWINGS, WHICH MUST BE ADAPTED TO THE REQUIREMENTS OF THE PARTICULAR SYSTEM OR NETWORK AND ACCOMPANIED BY DETAILED DESIGNS CERTIFIED BY AN RPEQ</p>	<p align="center">WATER SUPPLY STANDARD DRAWING</p> <p align="center">LARGE METER ARRANGEMENT</p> <p align="center">DN32 AND LARGER DOMESTIC SERVICE WITH ULTRASONIC/ELECTRO MAGNETIC METER</p>	CoGC	LEC	RSC	UB	UW
						DRAWING No.	SEQ-WAT-1111-4	VERSION	A	
						NOT TO SCALE		ORG DATE:	01/02/24	



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS ONLY APPLICABLE FOR DN32 AND LARGER DOMESTIC WATER SERVICE CONNECTIONS LOCATED WITHIN THE FIRST FLOOR OF A BASEMENT, WITHIN PRIVATE PROPERTY. THIS ARRANGEMENT SHALL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT LOCATION IS IMPRACTICAL, AND IS SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
2. THE METER SIZING GUIDE PROVIDED IN THIS DRAWING IS FOR REFERENCE ONLY. CORRECT METER SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.
3. THE START OF THE METER ASSEMBLY SHALL BE LOCATED WITHIN TWO METERS OF THE FRONT PROPERTY TITLE BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. ALTERNATIVELY, IF THE METER IS NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND ACCESSIBLE AT GROUND LEVEL AT ALL TIMES.
4. WATER METER ASSEMBLY SHALL HAVE 300 - 1200mm VERTICAL CLEARANCE FROM BASEMENT FLOOR TO UNDERSIDE OF FLANGE, AND MINIMUM 300mm HORIZONTAL CLEARANCE FROM BASEMENT WALL TO OUTERMOST PROJECTION OF FLANGE (AS SHOWN). WHERE SERVICE PIPE (ITEM 1) IS FLANGED, THE MINIMUM HORIZONTAL CLEARANCE BETWEEN THE BASEMENT WALL AND THE SERVICE PIPE INSIDE FACE OF FLANGE SHALL BE 300mm.
5. ASSEMBLY DETAIL DOWNSTREAM OF TEE & TESTING PORT (ITEM 5) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS PRIVATE PLUMBING.
6. SERVICE PIPE SMALLER THAN DN100 SHALL BE CONTINUOUS COPPER TO AS 1432.
7. THE ARRANGEMENT SHOWN ON THIS DRAWING ILLUSTRATES A DN50 SERVICE ARRANGEMENT. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS FOR ALL FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
8. REFER TO SEQ STANDARD DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.

ITEM	FITTING	SUPPLIED BY	OWNERSHIP	DESCRIPTION						
				DN32 service* Length approx 0.5m	DN40 service* Length approx 0.5m	DN50 service Length approx 1m	DN100 service (with 80mm meter) Length approx 1.1m	DN100 service (with 100mm meter) Length approx 1.3m	DN150 service Length approx 1.5m	DN200 service Length approx 1.7m
1	Service Pipe and 90° Bend	Customer	Customer	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN40 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
2	Isolation Valve	SEQ-SP	SEQ-SP	DN32 BSP Brass Ball/Globe Valve	DN40 BSP Brass Ball/Globe Valve	DN50 BSP Brass Ball/Globe Valve	DN100 FI-FI Gate Valve, thermal bonded epoxy coated ##	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN150 FI-FI Gate Valve, thermal bonded epoxy coated	DN200 FI-FI Gate Valve, thermal bonded epoxy coated
3	Non Return Valve	SEQ-SP	SEQ-SP	**	**	DN50 FI-FI swing check valve	DN80 FI-FI swing check valve	DN100 FI-FI swing check valve	DN150 FI-FI swing check valve	DN200 FI-FI swing check valve
4	Water Meter	SEQ-SP	SEQ-SP	32mm ultrasonic / electromagnetic meter (refer Note 2)	40mm ultrasonic / electromagnetic meter (refer Note 2)	50mm ultrasonic / electromagnetic meter (refer Note 2)	80mm ultrasonic / electromagnetic meter (refer Note 2)	100mm ultrasonic / electromagnetic meter (refer Note 2)	150mm ultrasonic / electromagnetic meter (refer Note 2)	200mm ultrasonic / electromagnetic meter (refer Note 2)
5	Tee & Testing Port	Customer	Customer	DN32 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN40 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN50 x DN25 Brass Tee with DN25 BSP Brass Ball Valve	DN80 FI-FI with DN25 tapping and DN25 BSP Brass Ball Valve ##	DN100 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN150 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve	DN200 FI-FI 316SS with DN25 tapping and DN25 BSP Brass Ball Valve
6	Customer Isolation Valve	Customer	Customer	BSP Brass Ball/Globe Valve	BSP Brass Ball/Globe Valve	Brass Ball/Globe Valve	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated	Gate Valve, thermal bonded epoxy coated
7	Service Pipe	Customer	Customer	DN32 Copper Class A, silver soldered with brass union, capillary - BSP M	DN40 Copper Class A, silver soldered with brass union, capillary - BSP M	DN50 Copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
8	Pipe (5D)	SEQ-SP	SEQ-SP	DN32 FI-FI 316SS, 160mm long	DN40 FI-FI 316SS, 200mm long	DN50 FI-FI 316SS, 250mm long	DN80 FI-FI 316SS, 400mm long	DN100 FI-FI 316SS, 500mm long	DN150 FI-FI 316SS, 750mm long	DN200 FI-FI 316SS, 1000mm long
9	Pipe (3D)	SEQ-SP	SEQ-SP	DN32 FI-FI 316SS, 100mm long	DN40 FI-FI 316SS, 120mm long	DN50 FI-FI 316SS, 150mm long	DN80 FI-FI 316SS, 240mm long	DN100 FI-FI 316SS, 300mm long	DN150 FI-FI 316SS, 450mm long	DN200 FI-FI 316SS, 600mm long
NA	Meter sizing guide - Number of dwellings serviced	NA	NA	7 - 21		22 - 89	90 - 300	301 - 500	501 - 800	> 800



DN100/80 FL-FI REDUCER (THERMAL BONDED EPOXY) TO BE INSTALLED ON DOWNSTREAM SIDE OF ISOLATION VALVE (ITEM 2 AND ITEM 5).
 * CUSTOMER TO SUPPLY DN32 WATER METER ASSEMBLY WHEN USED AS A DOMESTIC SERVICE ONLY.
 ** WHERE DN32 AND DN40 WATER METERS DO NOT INCORPORATE INTEGRAL FLOW RESTRICTER VALVES AND/OR STRAINER, EXTERNAL NON RETURN VALVE AND/OR STRAINER TO BE INSTALLED.

REV. No.	DATE	DESCRIPTION	AUTH.

SEQ WATER SERVICE PROVIDERS
WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION

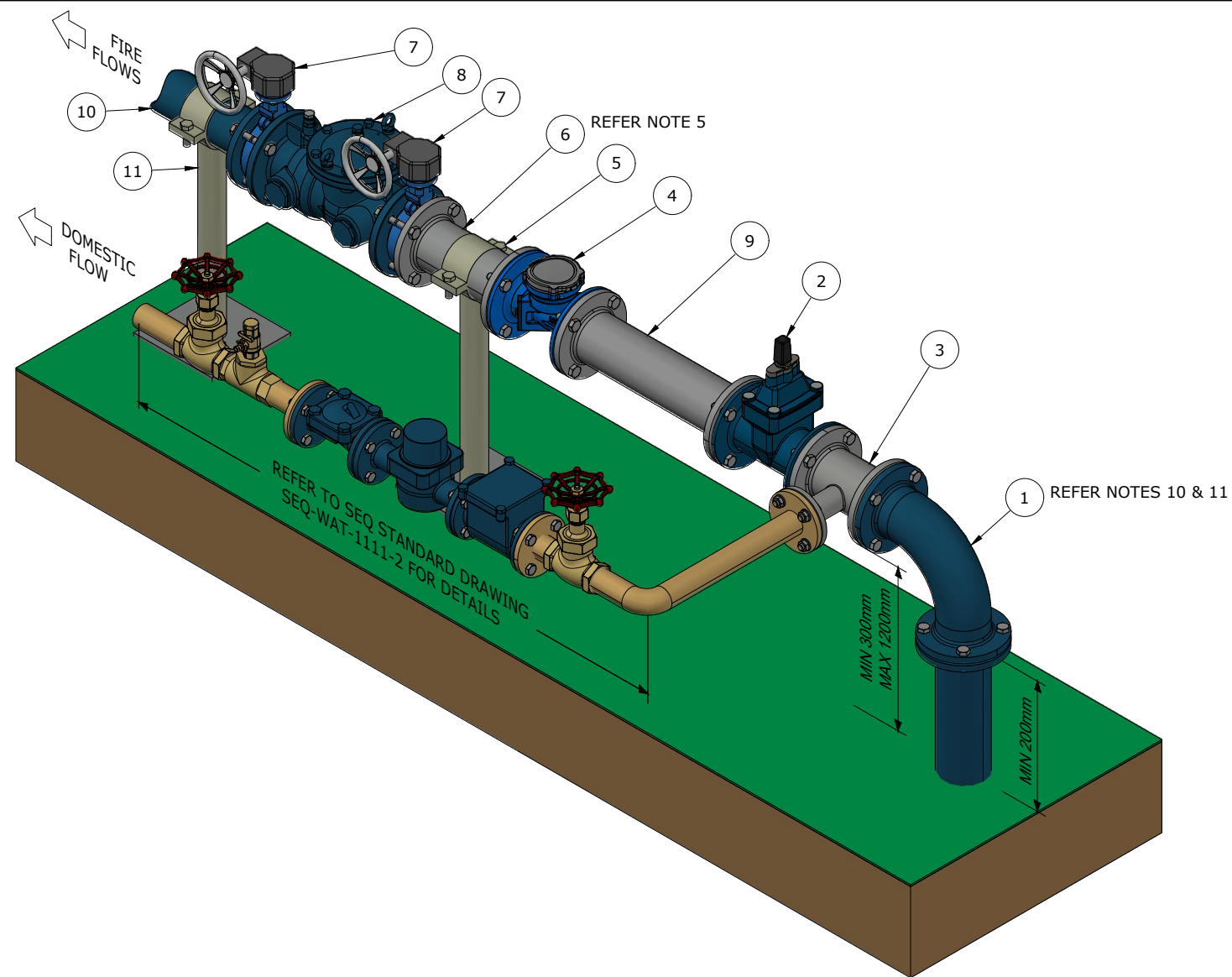
NOT FOR CONSTRUCTION

SEQ-SPs ACCEPT NO LIABILITY FOR THE USE OF TYPICAL DRAWINGS, WHICH MUST BE ADAPTED TO THE REQUIREMENTS OF THE PARTICULAR SYSTEM OR NETWORK AND ACCOMPANIED BY DETAILED DESIGNS CERTIFIED BY AN RPEQ

WATER SUPPLY STANDARD DRAWING

LARGE METER ARRANGEMENT
DN32 AND LARGER DOMESTIC SERVICE
FOR BASEMENT INSTALLATION WITH
ULTRASONIC/ELECTRO MAGNETIC METER

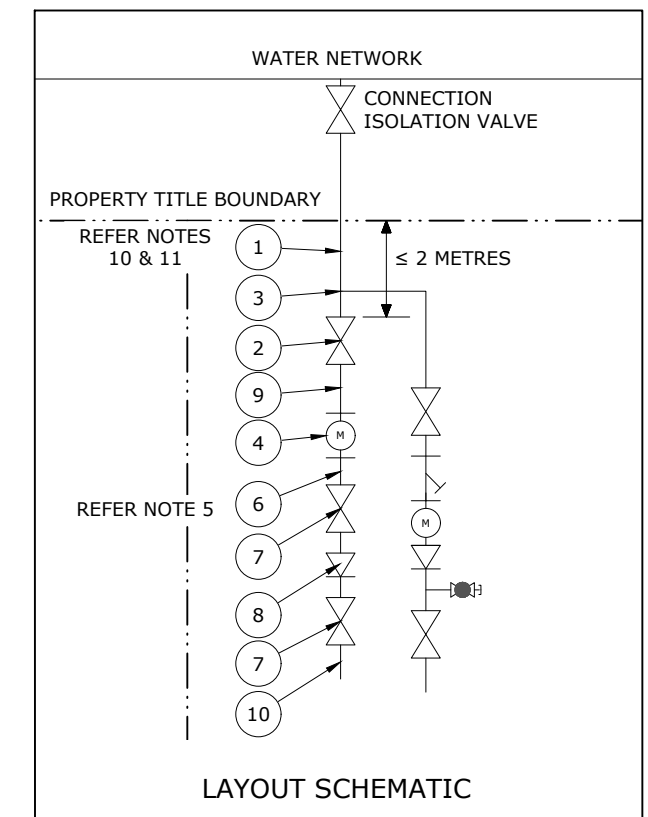
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NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS FOR A DOMESTIC (DN32 AND LARGER) SERVICE COMBINED WITH A FIRE SERVICE (DN100 AND LARGER), WHICH ARE METERED SEPARATELY AND NOT INSTALLED TO SERVICE A TOWNHOUSE STYLE COMMUNITY TITLE SCHEME DEVELOPMENT.
2. THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED WITHIN TWO (2) METRES OF THE FRONT PROPERTY BOUNDARY (REFER LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES.
3. THE PROPERTY SERVICE AND METER ASSEMBLY SHALL BE LOCATED AT LEAST ONE (1) METRE FROM ALL ELECTRICAL SOURCES AND AT LEAST 600mm HORIZONTALLY CLEAR OF EXISTING / FUTURE DRIVEWAYS, FENCES AND STRUCTURES. ANY OTHER ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
4. THE START OF THE METER ASSEMBLY SHALL HAVE MIN 300mm VERTICAL CLEARANCE BETWEEN FINISHED SURFACE LEVEL AND UNDERSIDE OF FLANGE (AS SHOWN). THE HORIZONTAL CLEARANCE BETWEEN THE FIRE SERVICE METER ARRANGEMENT AND THE DOMESTIC SERVICE SHALL BE AT LEAST 300mm.
5. ASSEMBLY DETAIL DOWNSTREAM OF THE FIRE SERVICE PIPE (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS PRIVATE PLUMBING. AS A MINIMUM, A CONTAINMENT BACKFLOW PREVENTION DEVICE MUST BE INSTALLED DOWNSTREAM OF THE PIPE (ITEM 6). THE BACKFLOW PREVENTION DEVICE MUST BE IN ACCORDANCE WITH AS 3500 AND BE AT LEAST A TESTABLE SINGLE CHECK VALVE.
6. WHERE THE FIRE SERVICE SUPPLIES BOTH HYDRANT AND SPRINKLER SERVICES, THE SPRINKLER SERVICE SHALL BRANCH OFF IMMEDIATELY DOWNSTREAM OF THE CONTAINMENT BACKFLOW PREVENTION DEVICE. HOSE REEL SERVICES MAY BE SUPPLIED FROM EITHER THE HYDRANT SERVICE LINE OR THE DOMESTIC SERVICE LINE.
7. THIS DRAWING ILLUSTRATES A DN150 FIRE SERVICE WITH A DN50 DOMESTIC SERVICE BRANCH. FITTINGS FOR OTHER SIZES SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS OF ALL THE FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
8. REFER TO SEQ STANDARD DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.
9. FOR CoGC, ALL ITEMS ARE TO BE SUPPLIED BY CUSTOMER.
10. FOR CoGC, IF ITEM 1 IS CONSTRUCTED THROUGH A BASEMENT TO AN ABOVE GROUND ASSEMBLY IT SHALL BE OWNED AND MAINTAINED BY THE CUSTOMER.
11. FOR UU, ITEM 1 IS SUPPLIED AND OWNED BY CUSTOMER.

ITEM	FITTING	SUPPLIED BY (REFER NOTE 9)	OWNERSHIP	DESCRIPTION		
				DN100 service Length approx 1.3m	DN150 service Length approx 1.8m	DN200 service Length approx 2.2m
1	Service Pipe and 90° Bend	SEQ-SP (Refer Note 11)	SEQ-SP (Refer Note 11)	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
2	Isolation Valve	SEQ-SP	SEQ-SP	DN100 FI-FI Gate Valve, thermal bonded epoxy coated.	DN150 FI-FI Gate Valve, thermal bonded epoxy coated.	DN200 FI-FI Gate Valve, thermal bonded epoxy coated.
3	Branch offtake Tee for domestic service	SEQ-SP	SEQ-SP	DN100/DNXX flanged reducing Tee 316SS	DN150/DNXX flanged reducing Tee 316SS	DN200/DNXX flanged reducing Tee 316SS
4	Fire Service Water Meter	SEQ-SP	SEQ-SP	100mm ultrasonic / electromagnetic meter	150mm ultrasonic / electromagnetic meter	200mm ultrasonic / electromagnetic meter
5	Pipe Support	SEQ-SP	SEQ-SP	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
6	Pipe (3D)	SEQ-SP	SEQ-SP	DN100 FI-FI 316SS, 300mm long	DN150 FI-FI 316SS, 450mm long	DN200 FI-FI 316SS, 600mm long
7	Isolation Valve	Customer	Customer	DN100 FI-FI Gate Valve	DN150 FI-FI Gate Valve	DN200 FI-FI Gate Valve
8	Backflow Prevention Device (Refer Note 5&6 and AS 3500 Section 4)	Customer	Customer	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant
9	Pipe (5D)	SEQ-SP	SEQ-SP	DN100 FI-FI 316SS, 500mm long	DN150 FI-FI 316SS, 750mm long	DN200 FI-FI 316SS, 1000mm long
10	Service Pipe	Customer	Customer	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
11	Pipe Support	Customer	Customer	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert



REV. No.	DATE	DESCRIPTION	AUTH.

SEQ WATER SERVICE PROVIDERS
WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION

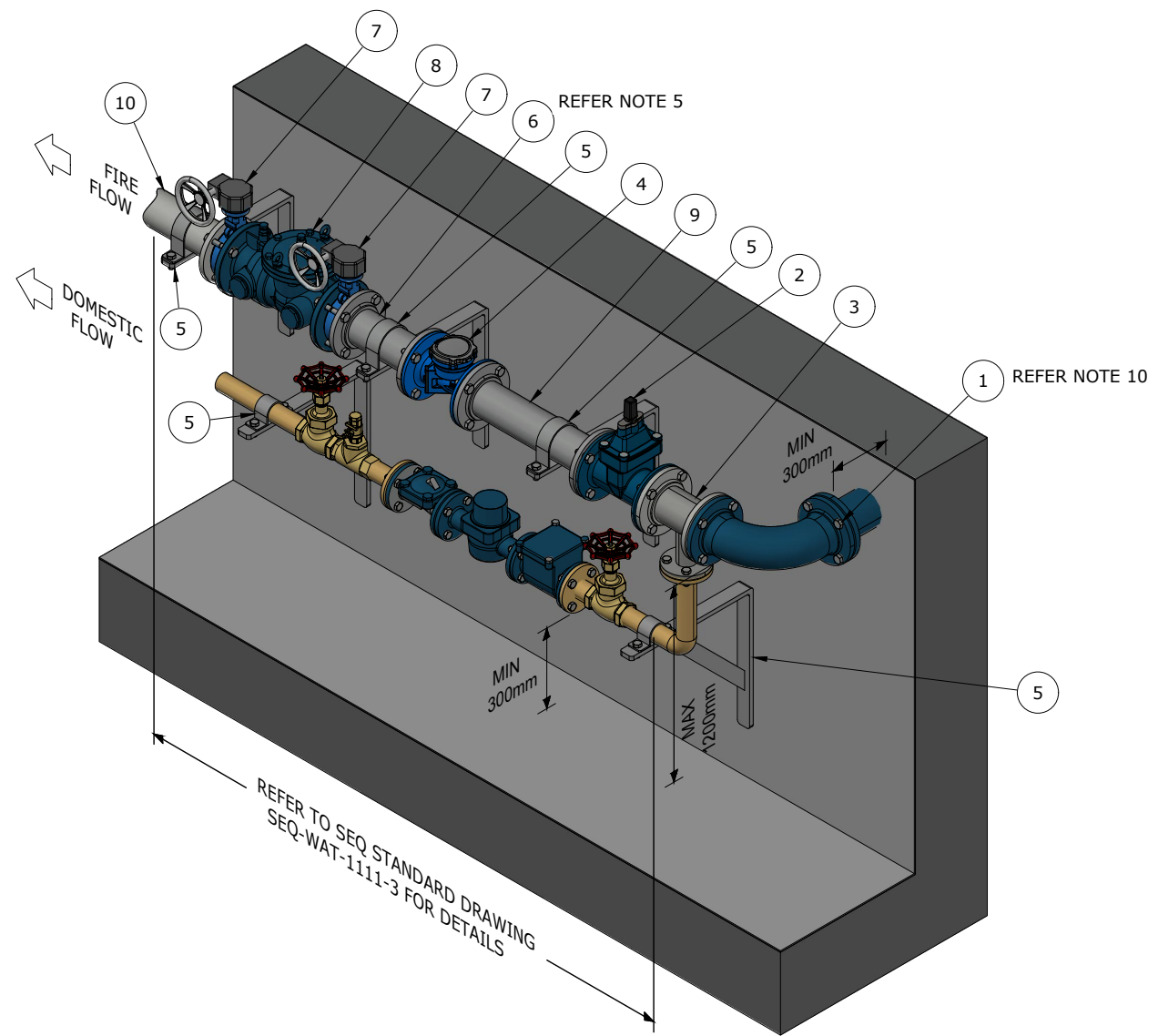
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SEQ-SPs ACCEPT NO LIABILITY FOR THE USE OF TYPICAL DRAWINGS, WHICH MUST BE ADAPTED TO THE REQUIREMENTS OF THE PARTICULAR SYSTEM OR NETWORK AND ACCOMPANIED BY DETAILED DESIGNS CERTIFIED BY AN RPEQ

WATER SUPPLY STANDARD DRAWING

**LARGE METER ARRANGEMENT
 DN32 AND LARGER DOMESTIC SERVICE
 WITH DN100 AND LARGER FIRE SERVICE**

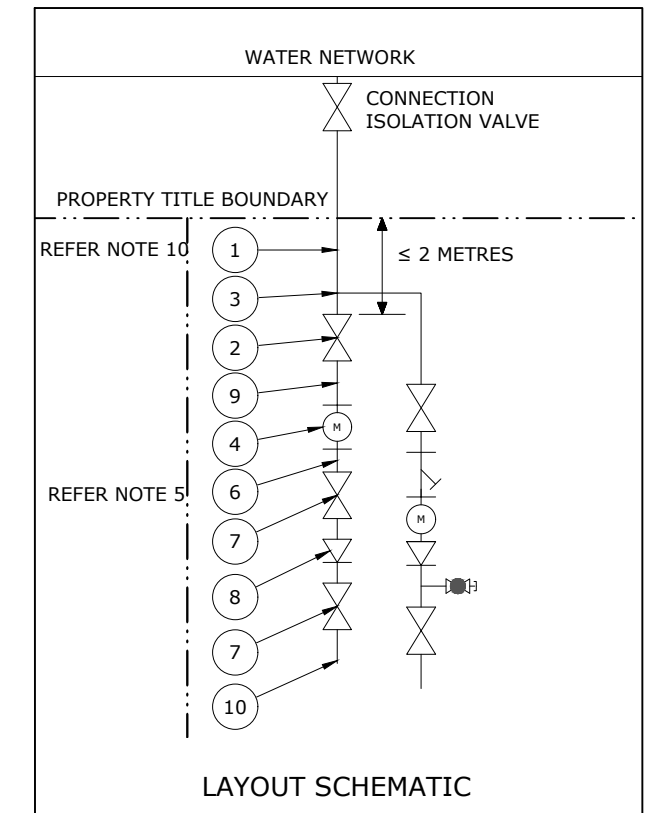
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NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS FOR A DOMESTIC (DN32 AND LARGER) SERVICE COMBINED WITH A FIRE SERVICE (DN100 AND LARGER) TO BE INSTALLED WITHIN THE FIRST FLOOR OF A BASEMENT. THIS ASSEMBLY SEPARATELY METERS THE DOMESTIC AND FIRE FLOWS, AND SHALL NOT BE INSTALLED TO SERVICE A TOWNHOUSE STYLE COMMUNITY TITLE SCHEME DEVELOPMENT. THIS ARRANGEMENT SHALL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT LOCATION IS IMPRACTICAL, AND IS SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
2. WHERE THE DOMESTIC SERVICE PIPE IS SMALLER THAN DN100, CONTINUOUS COPPER COMPLYING TO AS 1432 SHALL BE USED.
3. THE START OF THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED WITHIN TWO (2) METRES OF THE FRONT BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND SHALL PREFERABLY BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. ALTERNATIVELY, IF THE METERS ARE NOT ACCESSIBLE AT ALL TIMES, REMOTE METER READERS SHALL BE INSTALLED AND ACCESSIBLE AT GROUND LEVEL AT ALL TIMES.
4. WATER METER ASSEMBLY SHALL HAVE 300 - 1200mm VERTICAL CLEARANCE FROM BASEMENT FLOOR TO UNDERSIDE OF FLANGE AND MINIMUM 150mm HORIZONTAL CLEARANCE FROM BASEMENT WALL TO INSIDE FACE OF FLANGE (AS SHOWN). THE VERTICAL CLEARANCE BETWEEN THE TOP OF THE DOMESTIC METER ARRANGEMENT (I.E. TOP OF ISOLATION VALVE - ITEM 2) AND THE UNDERSIDE OF THE FIRE SERVICE ARRANGEMENT SHALL BE AT LEAST 300mm.
5. ASSEMBLY DETAIL DOWNSTREAM OF FIRE SERVICE PIPE (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS INTERNAL PLUMBING. AS A MINIMUM, A CONTAINMENT BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED DOWNSTREAM OF THE PIPE (ITEM 6). THE BACKFLOW PREVENTION DEVICE SHALL BE IN ACCORDANCE WITH AS 3500 AND BE AT LEAST A TESTABLE SINGLE CHECK VALVE.
6. WHERE THE FIRE SERVICE SUPPLIES BOTH HYDRANT AND SPRINKLER SERVICES, THE SPRINKLER SERVICE SHALL BRANCH OFF IMMEDIATELY DOWNSTREAM OF THE CONTAINMENT BACKFLOW PREVENTION DEVICE. HOSE REEL SERVICES MAY BE SUPPLIED FROM EITHER THE HYDRANT SERVICE LINE OR THE DOMESTIC SERVICE LINE.
7. THIS DRAWING ILLUSTRATES A DN150 FIRE SERVICE WITH A DN50 DOMESTIC SERVICE BRANCH. FITTINGS WITH OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS OF ALL THE FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
8. REFER TO SEQ STANDARD DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.
9. THE ITEMS OWNED BY RCC ARE SUPPLIED THROUGH RCC.
10. FOR UU, ITEM 1 IS SUPPLIED BY CUSTOMER.

ITEM	FITTING	SUPPLIED BY (REFER NOTE 9)	OWNERSHIP	DESCRIPTION		
				DN100 service Length approx 1.3m	DN150 service Length approx 1.8m	DN200 service Length approx 2.2m
1	Service Pipe and 90° Bend	SEQ-SP (Refer Note 10)	Customer	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
2	Isolation Valve	SEQ-SP	SEQ-SP	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN150 FI-FI Gate Valve, thermal bonded epoxy coated	DN200 FI-FI Gate Valve, thermal bonded epoxy coated
3	Branch offtake Tee for domestic service	Customer	Customer	DN100/DNXX flanged reducing Tee 316SS	DN150/DNXX flanged reducing Tee 316SS	DN200/DNXX flanged reducing Tee 316SS
4	Fire Service Water Meter	SEQ-SP	SEQ-SP	100mm ultrasonic / electromagnetic meter	150mm ultrasonic / electromagnetic meter	200mm ultrasonic / electromagnetic meter
5	Pipe Support	Customer	Customer	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
6	Pipe (3D)	SEQ-SP	SEQ-SP	DN100 FI-FI 316SS, 300mm long	DN150 FI-FI 316SS, 450mm long	DN200 FI-FI 316SS, 600mm long
7	Isolation Valve	Customer	Customer	DN100 FI-FI Gate Valve	DN150 FI-FI Gate Valve	DN200 FI-FI Gate Valve
8	Backflow Prevention Device (Refer Note 5 & 6 and AS 3500 Section 4)	Customer	Customer	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant
9	Pipe (5D)	SEQ-SP	SEQ-SP	DN100 FI-FI 316SS, 500mm long	DN150 FI-FI 316SS, 750mm long	DN200 FI-FI 316SS, 1000mm long
10	Service Pipe	Customer	Customer	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated



REV. No.	DATE	DESCRIPTION	AUTH.

SEQ WATER SERVICE PROVIDERS
WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION

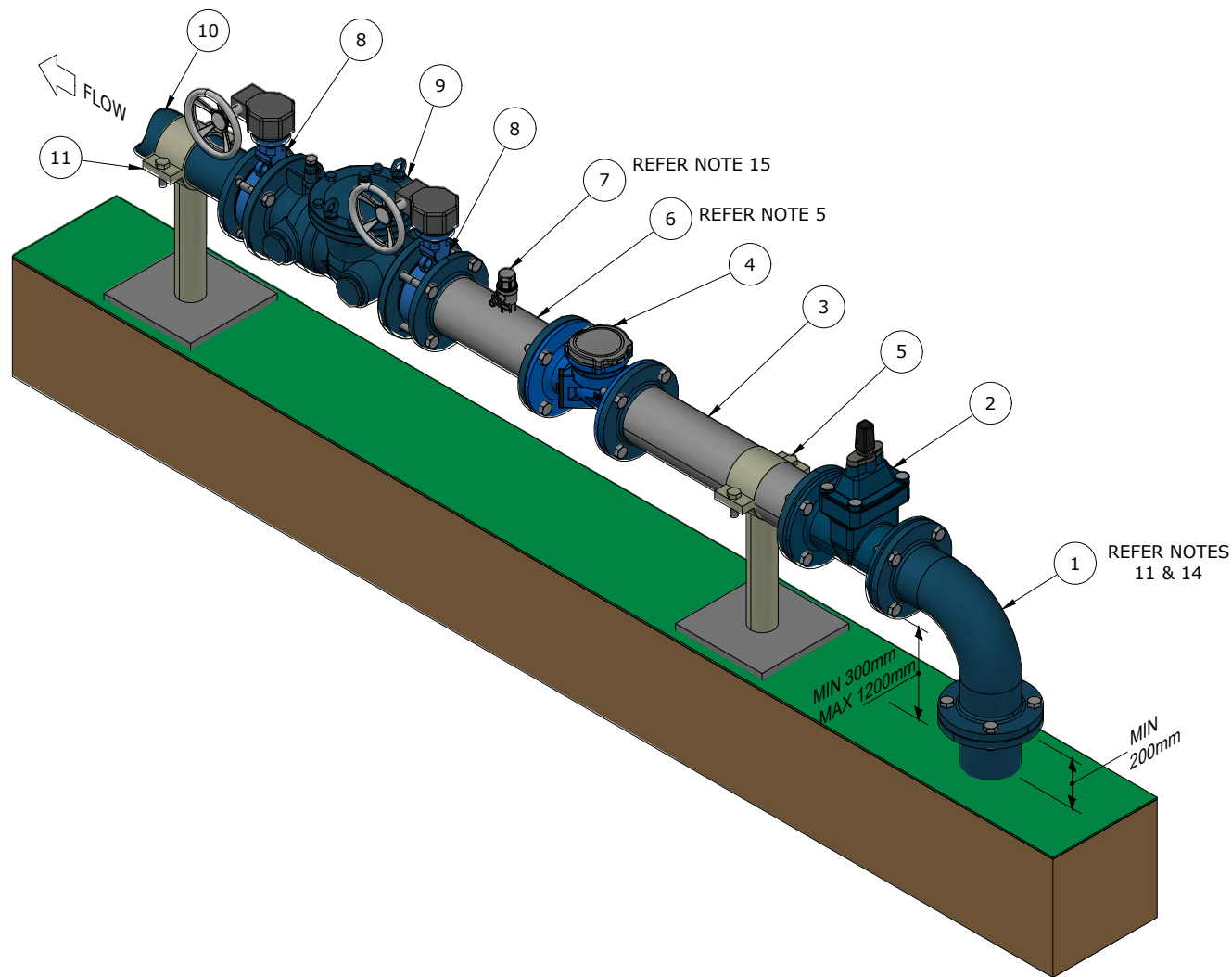
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SEQ-SPs ACCEPT NO LIABILITY FOR THE USE OF TYPICAL DRAWINGS, WHICH MUST BE ADAPTED TO THE REQUIREMENTS OF THE PARTICULAR SYSTEM OR NETWORK AND ACCOMPANIED BY DETAILED DESIGNS CERTIFIED BY AN RPEQ

WATER SUPPLY STANDARD DRAWING

**LARGE METER ARRANGEMENT
 DN32 AND LARGER DOMESTIC SERVICE
 WITH DN100 AND LARGER FIRE SERVICE
 FOR BASEMENT INSTALLATION**

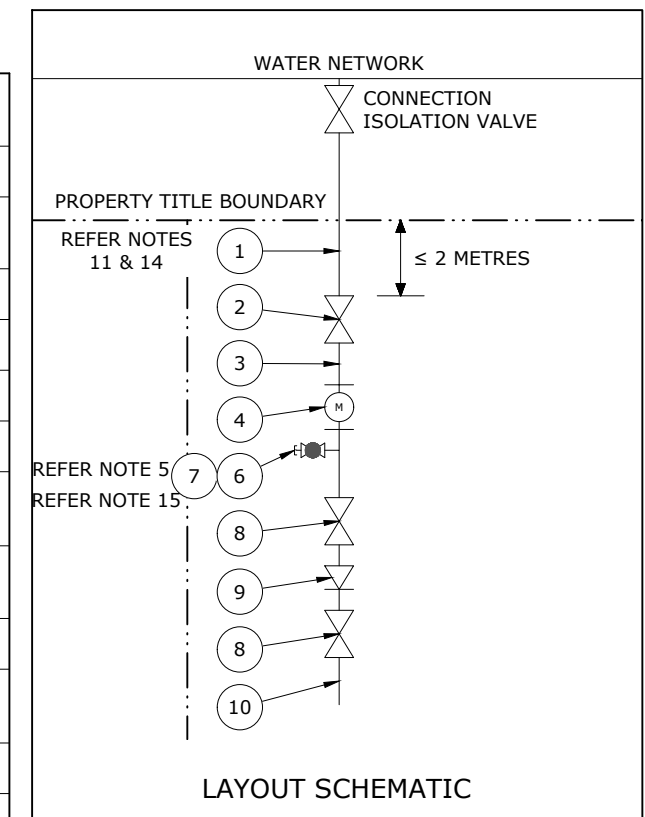
CoGC	LSC	RCC	UU	UW
DRAWING No.				VERSION
SEQ-WAT-1111-7				A
NOT TO SCALE				ORG DATE: 01/02/24



NOTES:

1. THIS METER ASSEMBLY ARRANGEMENT IS APPLICABLE FOR A FIRE SERVICE OR A TOWNHOUSE STYLE COMMUNITY TITLE SCHEME (C.T.S.) DEVELOPMENT COMBINED FIRE AND DOMESTIC SERVICE.
2. A METER SIZING GUIDE FOR DOMESTIC FLOWS IS PROVIDED IN THIS DRAWING FOR REFERENCE ONLY. CORRECT METER SIZING IS THE RESPONSIBILITY OF THE HYDRAULIC ENGINEER.
3. THE START OF THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED WITHIN TWO (2) METRES OF THE FRONT PROPERTY BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND SHALL BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. THE PROPERTY SERVICE AND METER ASSEMBLY SHALL BE LOCATED AT LEAST 1.0m FROM ALL ELECTRICAL SOURCES AND AT LEAST 600mm HORIZONTALLY CLEAR OF EXISTING/FUTURE DRIVEWAYS, FENCES AND STRUCTURES. ANY OTHER ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
4. WATER METER ASSEMBLY SHALL HAVE 300mm VERTICAL CLEARANCE BETWEEN FINISHED SURFACE LEVEL AND UNDERSIDE OF FLANGE (AS SHOWN).
5. ASSEMBLY DETAILED DOWNSTREAM OF THE PIPE (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS INTERNAL PLUMBING. AS A MINIMUM, A CONTAINMENT BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED DOWNSTREAM OF THE PIPE (ITEM 6). THE BACKFLOW PREVENTION DEVICE MUST BE IN ACCORDANCE WITH AS 3500 AND BE AT LEAST A TESTABLE SINGLE CHECK VALVE.
6. WHERE THE FIRE SERVICE SUPPLIES BOTH HYDRANT AND SPRINKLER SERVICES, THE SPRINKLER SERVICE SHALL BRANCH OFF IMMEDIATELY DOWNSTREAM OF THE CONTAINMENT BACKFLOW PREVENTION DEVICE.
7. THIS DRAWING ILLUSTRATES A DN150 FIRE SERVICE OR TOWNHOUSE STYLE C.T.S. COMBINED FIRE AND DOMESTIC SERVICE ARRANGEMENT. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS FOR ALL THE FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
8. REFER TO SEQ STANDARD DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.
9. FOR CoGC, ALL THE ITEMS ARE TO BE SUPPLIED BY CUSTOMER.
10. THE ITEMS OWNED BY RCC ARE SUPPLIED THROUGH RCC.
11. FOR CoGC, IF ITEM 1 IS CONSTRUCTED THROUGH A BASEMENT TO AN ABOVE GROUND ASSEMBLY IT SHALL BE OWNED AND MAINTAINED BY THE CUSTOMER.
12. CoGC DOES NOT USE 80mm METERS.
13. RCC DOES NOT ACCEPT DN100 SERVICE WITH 80mm METER.
14. FOR UU, ITEM 1 IS SUPPLIED AND OWNED BY CUSTOMER.
15. FOR UU, ITEM 7 IS OWNED BY UU.

ITEM	FITTING	SUPPLIED BY (REFER NOTE 9 & 10)	OWNERSHIP	DESCRIPTION				
				DN50 service Length approx 1m	DN100 service (with 80mm meter) Length approx 1.3m	DN100 service (with 100mm meter) Length approx 1.3m	DN150 service Length approx 1.8m	DN200 service Length approx 2.2m
1	Service Pipe and 90° Bend	SEQ-SP (Refer Note 14)	SEQ-SP (Refer Note 14)	DN50 copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
2	Isolation Valve	SEQ-SP	SEQ-SP	DN50 BSP Brass Ball / Globe Valve	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN150 FI-FI Gate Valve, thermal bonded epoxy coated	DN200 FI-FI Gate Valve, thermal bonded epoxy coated
3	Pipe (5D)	SEQ-SP	SEQ-SP	DN50 FI-FI 316SS, 250mm long	DN100 / 80 FI-FI DI reducer and DN80 FI-FI 316SS pipe, 400mm long	DN100 FI-FI 316SS, 500mm long	DN150 FI-FI 316SS, 750mm long	DN200 FI-FI 316SS, 1000mm long
4	Water Meter	SEQ-SP	SEQ-SP	50mm ultrasonic / electromagnetic meter (refer Note 2)	80mm ultrasonic / electromagnetic meter (refer Note 2)	100mm ultrasonic / electromagnetic meter (refer Note 2)	150mm ultrasonic / electromagnetic meter (refer Note 2)	200mm ultrasonic / electromagnetic meter (refer Note 2)
5	Pipe Support	SEQ-SP	SEQ-SP	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
6	Pipe (3D)	SEQ-SP	SEQ-SP	DN50 FI-FI 316SS, 150mm long with DN25 tapping	DN100/80 FI-FI DI reducer & DN80 FI-FI 316SS pipe, 240mm long with DN25 tapping	DN100 FI-FI 316SS, 300mm long with DN25 tapping	DN150 FI-FI 316SS, 450mm long with DN25 tapping	DN200 FI-FI 316SS, 600mm long with DN25 tapping
7	Testing Port	SEQ-SP	Customer (Refer Note 15)	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve
8	Isolation Valve	Customer	Customer	AS 3500 Compliant DN50 valve	AS 3500 Compliant DN100 valve	AS 3500 Compliant DN100 valve	AS 3500 Compliant DN150 valve	AS 3500 Compliant DN200 valve
9	Backflow Prevention Device (Refer to Notes 5 & 6 and AS 3500 Section 4)	Customer	Customer	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant
10	Service Pipe	Customer	Customer	DN50 copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
11	Pipe Support	Customer	Customer	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
NA	Meter sizing guide - Number of dwellings serviced	NA	NA	22 - 38	39 - 149	150 - 274	275 - 800	> 800



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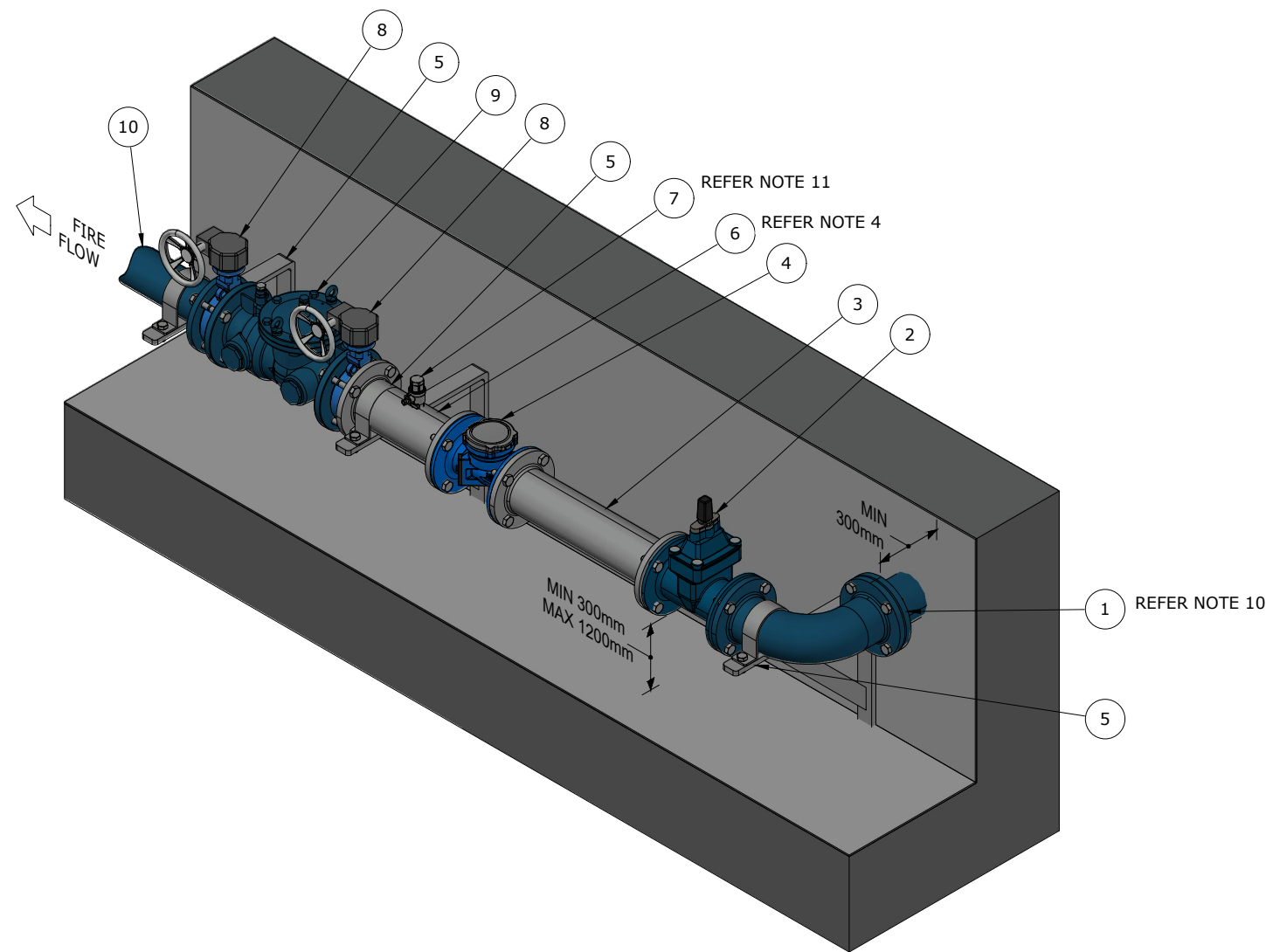
SEQ WATER SERVICE PROVIDERS
WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION

NOT FOR CONSTRUCTION
SEQ-SPs ACCEPT NO LIABILITY FOR THE USE OF TYPICAL DRAWINGS, WHICH MUST BE ADAPTED TO THE REQUIREMENTS OF THE PARTICULAR SYSTEM OR NETWORK AND ACCOMPANIED BY DETAILED DESIGNS CERTIFIED BY AN RPEQ

WATER SUPPLY STANDARD DRAWING

**LARGE METER ARRANGEMENT
 DN50 AND LARGER FIRE SERVICE
 OR TOWNHOUSE STYLE C.T.S.
 COMBINED FIRE AND DOMESTIC SERVICE**

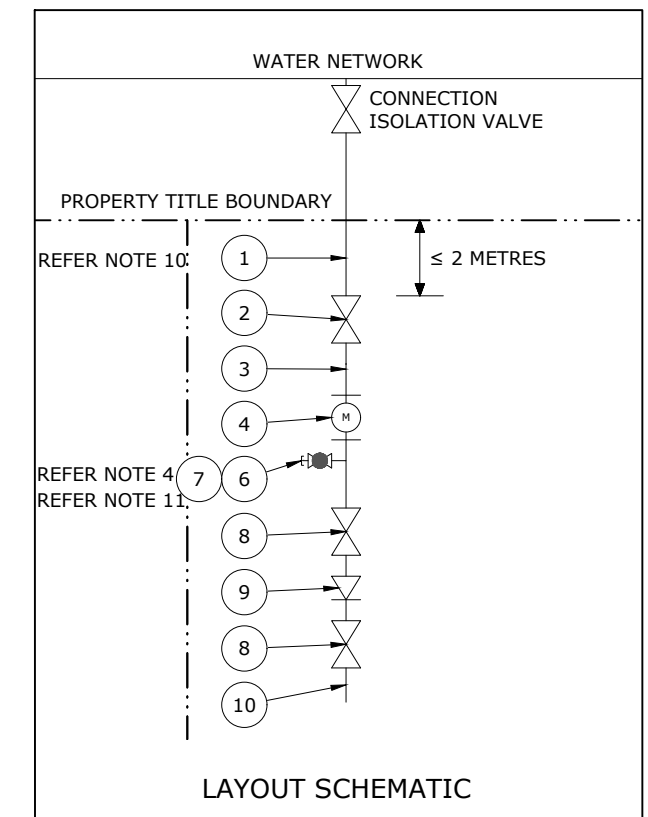
CoGC	LSC	RCC	UU	UW
DRAWING No.				VERSION
SEQ-WAT-1111-8				A
NOT TO SCALE				ORG DATE: 01/02/24



NOTES:

1. THIS METER ARRANGEMENT IS ONLY APPLICABLE FOR A FIRE SERVICE LOCATED WITHIN THE FIRST FLOOR OF A BASEMENT, WITHIN PRIVATE PROPERTY. THIS ARRANGEMENT SHALL ONLY BE CONSIDERED WHERE AN ABOVE-GROUND METER ARRANGEMENT LOCATION IS IMPRACTICAL, AND IS SUBJECT TO PRIOR APPROVAL BY SEQ-SP.
2. THE START OF THE METER ASSEMBLY ARRANGEMENT SHALL BE LOCATED WITHIN TWO (2) METRES OF THE FRONT PROPERTY BOUNDARY (SEE LAYOUT SCHEMATIC), UPSTREAM OF ALL INTERNAL OFFTAKES, AND PREFERABLY BE ACCESSIBLE FOR READING, MAINTENANCE AND REPLACEMENT AT ALL TIMES. ALTERNATIVELY, IF THE METER IS NOT ACCESSIBLE AT ALL TIMES, A REMOTE METER READER SHALL BE INSTALLED AND BE ACCESSIBLE AT ALL TIMES, AT GROUND LEVEL.
3. WATER METER ASSEMBLY SHALL HAVE 300 - 1200mm VERTICAL CLEARANCE FROM BASEMENT FLOOR TO UNDERSIDE OF FLANGE, AND MINIMUM 300mm HORIZONTAL CLEARANCE FROM BASEMENT WALL TO INSIDE FACE OF FLANGE (AS SHOWN).
4. ASSEMBLY DETAIL DOWNSTREAM OF THE PIPE (ITEM 6) IS SHOWN FOR REFERENCE ONLY AND IS CLASSIFIED AS INTERNAL PLUMBING. AS A MINIMUM, A CONTAINMENT BACKFLOW PREVENTION DEVICE MUST BE INSTALLED DOWNSTREAM OF THE PIPE (ITEM 6). THE BACKFLOW PREVENTION DEVICE MUST BE IN ACCORDANCE WITH AS 3500 AND BE AT LEAST A TESTABLE SINGLE CHECK VALVE.
5. WHERE THE FIRE SERVICE SUPPLIES BOTH HYDRANT AND SPRINKLER SERVICES, THE SPRINKLER SERVICE SHALL BRANCH OFF IMMEDIATELY DOWNSTREAM OF THE CONTAINMENT BACKFLOW PREVENTION DEVICE.
6. THIS DRAWING ILLUSTRATES A DN150 FIRE SERVICE. FITTINGS FOR OTHER SIZE SERVICES WILL BE SLIGHTLY DIFFERENT. THE TABLE BELOW DOES NOT PROVIDE DETAILS OF ALL THE FITTINGS REQUIRED, ONLY THE MAIN COMPONENTS.
7. REFER TO SEQ STANDARD DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.
8. RCC DOES NOT ACCEPT DN100 SERVICE WITH 80mm METER.
9. THE ITEMS OWNED BY RCC ARE SUPPLIED THROUGH RCC.
10. FOR UU, ITEM 1 IS SUPPLIED BY CUSTOMER.
11. FOR UU, ITEM 7 IS SUPPLIED AND OWNED BY UU.

ITEM	FITTING	SUPPLIED BY (REFER NOTE 9)	OWNERSHIP	DESCRIPTION				
				DN50 service Length approx 1m	DN100 service (with 80mm meter) Length approx 1.3m	DN100 service (with 100mm meter) Length approx 1.3m	DN150 service Length approx 1.8m	DN200 service Length approx 2.2m
1	Service Pipe and 90° Bend	SEQ-SP (Refer Note 10)	Customer	DN50 copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated
2	Isolation Valve	SEQ-SP	SEQ-SP	DN50 BSP Brass Ball / Globe Valve	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN100 FI-FI Gate Valve, thermal bonded epoxy coated	DN150 FI-FI Gate Valve, thermal bonded epoxy coated	DN200 FI-FI Gate Valve, thermal bonded epoxy coated
3	Pipe (5D)	SEQ-SP	SEQ-SP	DN50 FI-FI 316SS, 250mm long	DN100/80 FI-FI DI reducer and DN80 FI-FI 316SS pipe, 400mm long	DN100 FI-FI 316SS, 500mm long	DN150 FI-FI 316SS, 750mm long	DN200 FI-FI 316SS, 1000mm long
4	Water Meter	SEQ-SP	SEQ-SP	50mm ultrasonic / electromagnetic meter	80mm ultrasonic / electromagnetic meter	100mm ultrasonic / electromagnetic meter	150mm ultrasonic / electromagnetic meter	200mm ultrasonic / electromagnetic meter
5	Pipe Support	Customer	Customer	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert	Galvanized mild steel with rubber insert
6	Pipe (3D)	SEQ-SP	SEQ-SP	DN50 FI-FI 316SS, 150mm long with DN25 tapping	DN100/80 FI-FI DI reducer and DN80 FI-FI 316SS pipe, 240mm long with DN25 tapping	DN100 FI-FI 316SS, 300mm long with DN25 tapping	DN150 FI-FI 316L SS, 450mm long with DN25 tapping	DN200 FI-FI 316SS, 600mm long with DN25 tapping
7	Testing Port	Customer (Refer Note 11)	Customer (Refer Note 11)	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve	DN25 BSP Brass Ball Valve
8	Isolation Valve	Customer	Customer	AS 3500 Compliant DN50 valve	AS 3500 Compliant DN100 valve	AS 3500 Compliant DN100 valve	AS 3500 Compliant DN150 valve	AS 3500 Compliant DN200 valve
9	Backflow Prevention Device (Refer to Notes 4 & 5 and AS 3500 Section 4)	Customer	Customer	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant	AS/NZS 2845.1 Compliant
10	Service Pipe	Customer	Customer	DN50 copper Class A, silver soldered with brass union, capillary - BSP M	DN100 FI-FI DI, thermal bonded epoxy coated	DN100 FI-FI DI, thermal bonded epoxy coated	DN150 FI-FI DI, thermal bonded epoxy coated	DN200 FI-FI DI, thermal bonded epoxy coated



REV. No.	DATE	DESCRIPTION	AUTH.

SEQ WATER SERVICE PROVIDERS
WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION

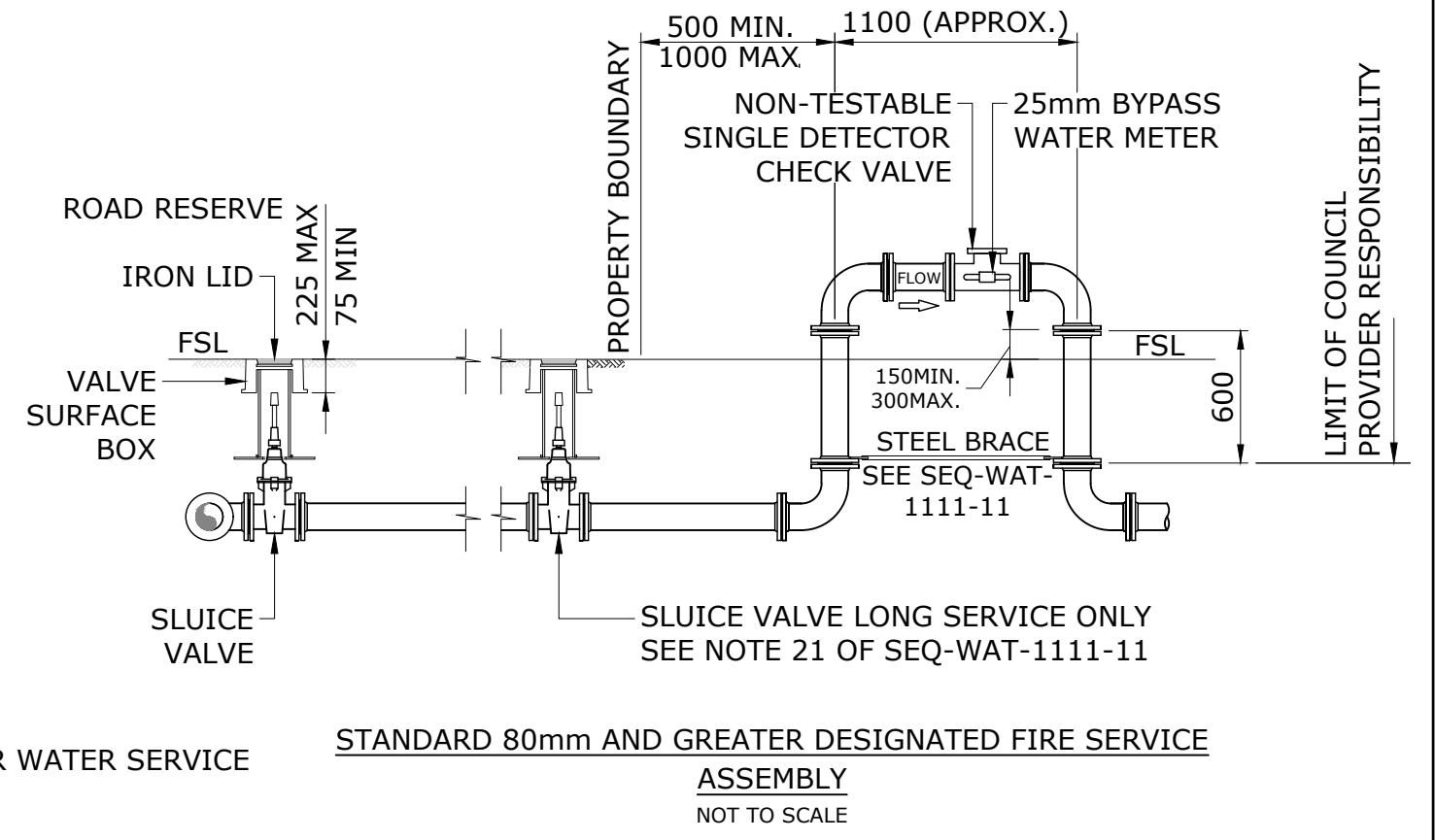
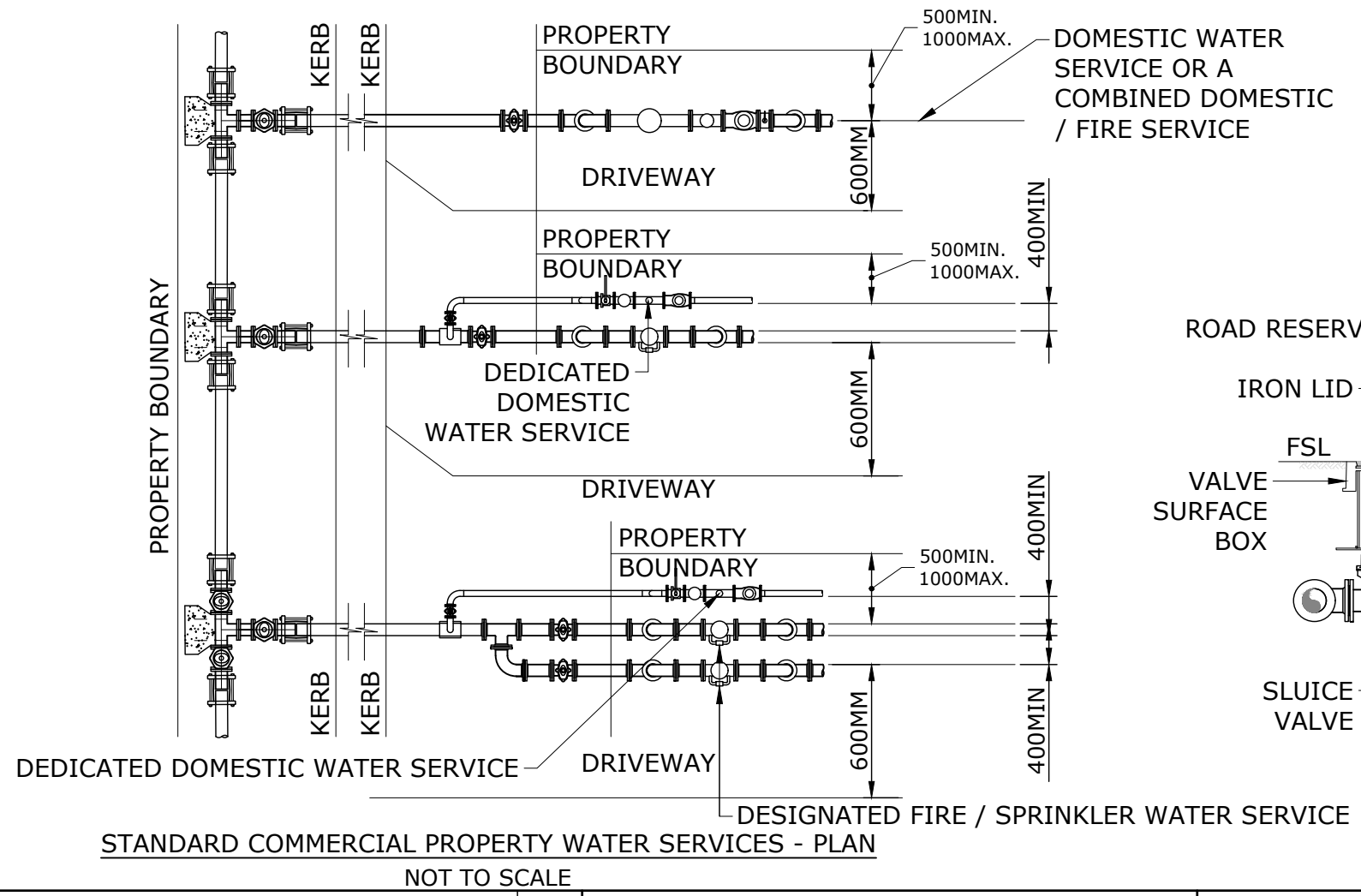
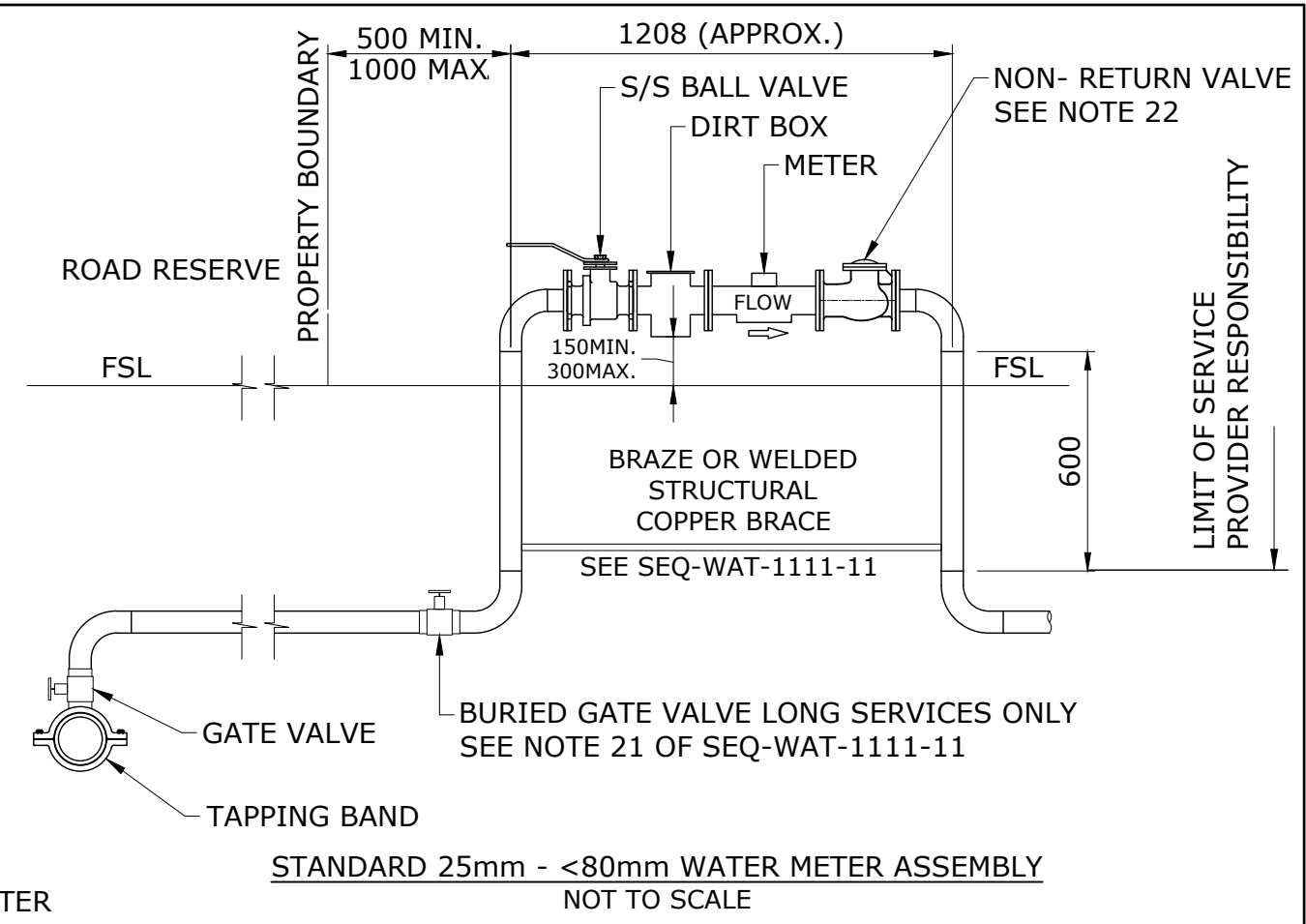
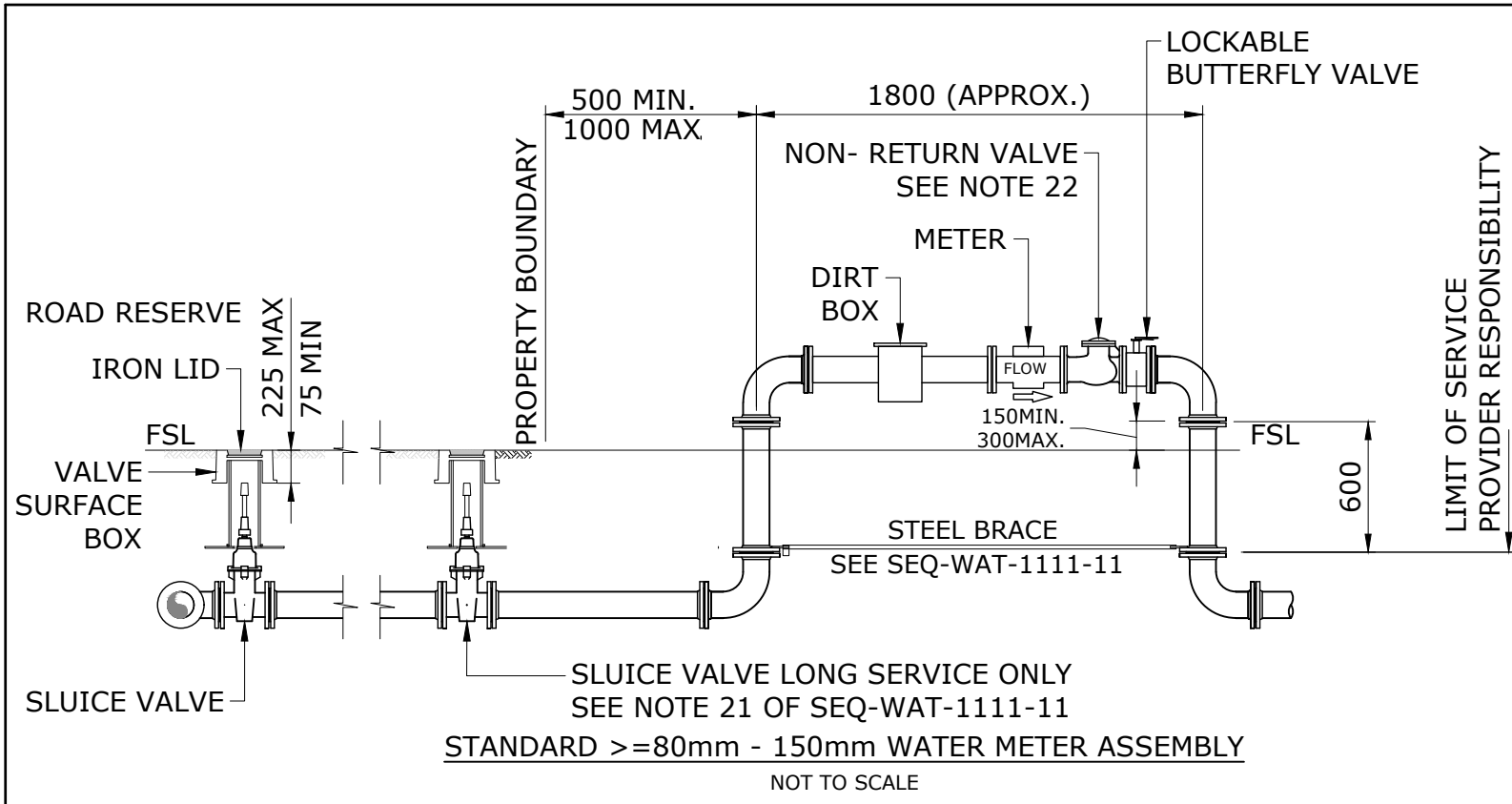
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WATER SUPPLY STANDARD DRAWING

LARGE METER ARRANGEMENT
DN50 AND LARGER FIRE SERVICE
FOR BASEMENT INSTALLATION

CoGC	LSC	RCC	UU	UW
DRAWING No.				VERSION
SEQ-WAT-1111-9				A
NOT TO SCALE				ORG DATE: 01/02/24



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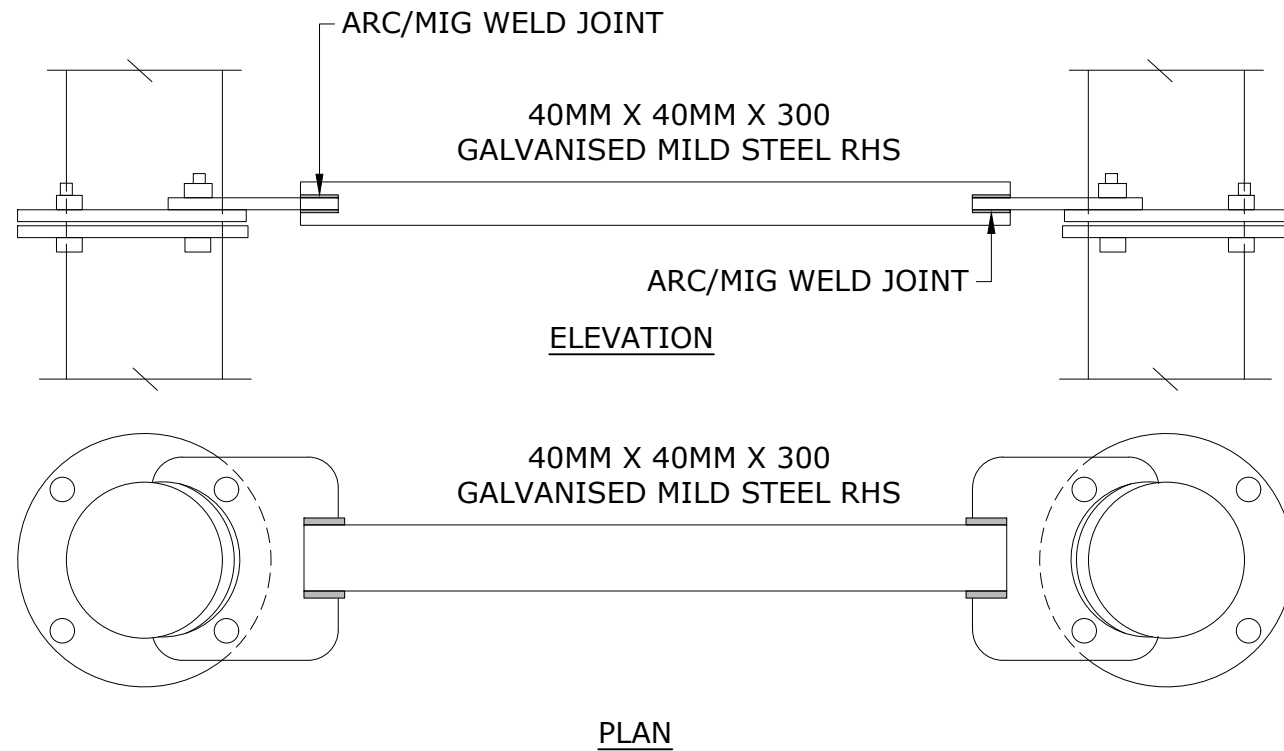
SEQ WATER SERVICE PROVIDERS
WORK PRACTICES MUST COMPLY WITH ALL APPLICABLE OCCUPATIONAL HEALTH & SAFETY LEGISLATION

NOT FOR CONSTRUCTION
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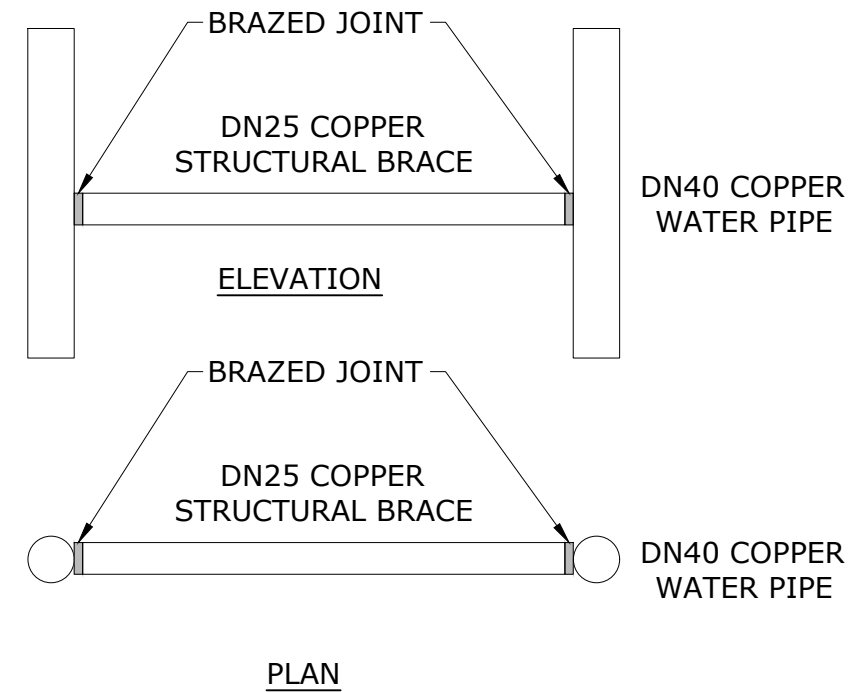
WATER SUPPLY STANDARD DRAWING

LARGE METER ARRANGEMENT
 DN25 AND LARGER COMMERCIAL WATER SERVICE AND DN80 AND LARGER FIRE SERVICE

CoGC	LCC	RCC	UB	UW
DRAWING No.				VERSION
SEQ-WAT-1111-10				A
NOT TO SCALE				ORG DATE: 01/02/24



WATER METER ASSEMBLY STEEL BRACE DETAIL



WATER METER ASSEMBLY COPPER BRACE DETAIL

NOTES

1. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORKS SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
2. ALL FITTINGS AND PIPES SHALL BE JOINTED IN ACCORDANCE WITH THEIR MANUFACTURER'S REQUIREMENTS.
3. ALL SERVICE PIPES OUTSIDE ENVELOPERS/CONDUITS MUST HAVE 100mm BEDDING MATERIAL AND SURROUND OF IMPORTED SAND CONFORMING TO TABLE G3 OF AS2566.2 OR 5-7mm NOMINAL SINGLE SIZED AGGREGATE AS PER WSA PS-351.
4. ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS SHOWN OTHERWISE.
5. ALL PROPERTY WATER SERVICES SHALL BE CONSTRUCTED TO COMPLY WITH CLAUSE 5.11 IN GENERAL & 5.11.9 OF THE SEQ WATER SUPPLY CODE WHERE APPLICABLE.
6. ALTERATIONS TO WATER METER ASSEMBLIES ARE NOT PERMITTED UNLESS APPROVED BY SERVICE PROVIDER.
7. ALL PROPERTY WATER SERVICE DEPTHS ARE TO COMPLY WITH CLAUSE 7.4.2 TABLE 7.2 SEQ WATER SUPPLY CODE.
8. ALL WATER METER ASSEMBLIES ARE TO CONFORM TO WATER METER MANUFACTURER'S SPECIFICATIONS FOR SPACING BETWEEN FITTINGS DOWN/UPSTREAM OF WATER METERS.
9. COMMERCIAL PROPERTY METERED FIRE SERVICES AND PROPERTY METERED WATER SERVICES ARE TO BE ABLE TO BE ISOLATED INDEPENDENTLY OF EACH OTHER AT THE PROPERTY BOUNDARY.
10. ALL COMMERCIAL WATER SERVICES, INCLUDING WATER METER ASSEMBLIES ARE TO BE CONSTRUCTED IN EITHER COPPER OR DICI UNLESS OTHERWISE AUTHORISED BY SERVICE PROVIDER.
11. PRIVATE BACKFLOW PREVENTION DEVICE MUST BE AS/NZS 2845.1 CERTIFIED AND MUST BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.1. THE INSTALLATION SHALL BE ASSESSED AND APPROVED BY COUNCIL PLUMBING AND DRAINAGE SECTION.
12. IT IS PROPERTY OWNER RESPONSIBILITY TO PROVIDE ADEQUATE PROTECTION OF THE METER ASSEMBLY TO PREVENT IT FROM DAMAGE OR VANDALISM. BOLLARDS, A CAGE OR OTHER PROTECTION MEASURES MAY BE REQUIRED TO SATISFY THE WATER SERVICE PROVIDER.
13. IT IS PROPERTY OWNER RESPONSIBILITY TO PROVIDE ADEQUATE CLEARANCE AROUND THE WATER METER ASSEMBLY AND SAFE ACCESS TO AND FROM THE WATER METER ASSEMBLY FOR THE WATER SERVICE PROVIDER TO BE ABLE TO READ, MAINTAIN AND REPLACE THE WATER METER ASSEMBLY AT ALL TIMES.
14. THIS WATER METER ASSEMBLY ARRANGEMENT IS ONLY APPLICABLE FOR ABOVE GROUND INSTALLATIONS WITHIN PRIVATE PROPERTY OF LARGE DIAMETER SERVICES ASSOCIATED WITH MULTI-UNIT RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL DEVELOPMENTS. ANY OTHER WATER METER ASSEMBLY ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY THE WATER SERVICE PROVIDER.
15. THE PROPERTY SERVICE AND METER ASSEMBLY SHALL BE LOCATED AT LEAST 1.0m FROM ALL ELECTRICAL SOURCE AND AT LEAST 600mm HORIZONTALLY CLEAR OF EXISTING OR FUTURE DRIVEWAYS, FENCES AND STRUCTURES. ANY OTHER ARRANGEMENT IS SUBJECT TO PRIOR APPROVAL BY THE WATER SERVICE PROVIDER.
16. LODGMEN OF A PRIVATE WORKS APPLICATION TO COUNCIL IS REQUIRED FOR THE INSTALLATION OF PROPERTY SERVICE AND METER ASSEMBLY.
17. ALL CONDUITS TO SERVICE LONG WATER SERVICE DN25 - DN 50 ROAD CROSSING MUST BE CONSTRUCTED OF 150 MM UPVC PN9 SERIES 1 (SOLVENT WELD JOINTS) PIPE.
18. CONDUIT CROSSINGS FOR WATER SERVICES DN 25 AND LARGER TO BE INSTALLED AT 90 DEG ACROSS THE ROAD, TO WATER METER LOCATION INDICATED ON THE DESIGN PLAN.
19. ALL SERVICES DN25 - DN50 ARE REQUIRED TO BE CONSTRUCTED OF CONTINUOUS COPPER TUBE UNLESS OTHERWISE APPROVED. THE USE OF CRIMP & COMPRESSION FITTINGS ARE PERMITTED.
20. THE USE OF PE PIPE FOR COMMERCIAL WATER SERVICE (DN25-DN50) IS PERMITTED ON LONG SERVICES ONLY BY PRIOR APPROVAL BY SP.
21. ALL LONG WATER SERVICE INSTALLATION MUST HAVE A SLUICE /BALL VALVE WITHIN 1.0m OF THE BASE OF THE INLET OF THE WATER METER ASSEMBLY.
22. NON-TESTABLE NON-RETURN VALVE TO BE FITTED TO ALL WATER METER ASSEMBLIES DN50 AND LARGER (DN25 - DN40 METERS FITTED WITH INTEGRAL CHECK VALVES OR FLOW RESTRICTOR VALVES).
23. REFER TO DRAWING SEQ-WAT-1111-1 FOR FURTHER NOTES.

REV. No.	DATE	DESCRIPTION	AUTH.	SEQ WATER SERVICE PROVIDERS		WATER SUPPLY STANDARD DRAWING		CoGC	LCC	RCC	UU	UW
				NOT FOR CONSTRUCTION <small>SEQ-SPs ACCEPT NO LIABILITY FOR THE USE OF TYPICAL DRAWINGS, WHICH MUST BE ADAPTED TO THE REQUIREMENTS OF THE PARTICULAR SYSTEM OR NETWORK AND ACCOMPANIED BY DETAILED DESIGNS CERTIFIED BY AN RPEQ</small>		LARGE METER ARRANGEMENT COMMERCIAL WATER SERVICE AND FIRE SERVICE BRACE DETAILS AND NOTES		DRAWING No.				VERSION
								SEQ-WAT-1111-11				A
								NOT TO SCALE				ORG DATE: 01/02/24