

APPROVED MATERIALS

AM-1 STORMWATER

Table 1: Stormwater

Materials that are not on the following table MUST be approved by Council – refer to – Engineering Manager

Updated 20.01.25

S.no	Category / Material	Application	Standard	Product / Comment	Recommended Manufacturer	Recommended Supplier
A-M1.1	Stormwater Pipe	Primary mains: Larger than 225mm. Reticulation mains: 225mm-150mm Lateral / connection: 100mm and 150mm	ASS 1254	Rubber ring joint only	Iplex Pipelines Ltd RX plastics Ltd Marley Ltd	Hynds Pipe Systems Ltd Humes Pipeline Systems
AM-1.1.2	Reinforced Concrete Rubber Ring Jointed Pipes (RCRRJ)	All primary mains greater than 450mm ID	AS/NZS 4058	Primary for larger mains	Hynds Pipe Systems Ltd Humes Pipeline Systems	Hynds Pipe Systems Ltd Humes Pipeline Systems
AM-1.1.3	Roller Compacted Pipes	For culverts and Stormwater mains		AS/NZS 4058:2007	Humes Pipeline Systems	Humes Pipeline Systems Mico Pipelines
AM-1.1.4	Ductile Iron Class K9 / K12	Structural mains	AS/NZS 2280 and amendments	<ul style="list-style-type: none"> ▪ Light cement lined with Tyton joints. External protection with green sleeve 	Tubemakers of Australia – Manufacturer	Asmuss Water Systems

				Generally suspended pipes and high structural loadings	capable of meeting the required standard	
AM-1.1.5	Ductile Iron Pipe Light Cement Lined Tyton Excel PN20 and PN35	Structural mains	AS/NZS 2280 and amendments	<ul style="list-style-type: none"> Tyton joint elastomeric seals and socket / spigot joints (with blue polyethylene sleeve) Asmuss Water Systems Licence #SMK0883	Asmuss Water Systems – Manufacturer capable of meeting the required standard	Asmuss Water Systems
AM-1.1.6	Polypropylene (PP) Twin-Wall Pipe (SN 16)	Gravity networks	AS/NZS 5065	Waters & Farr-Stormboss	Waters & Farr Infrapipe Limited (DN100 – 1000mm)	Hynds Pipe Systems Ltd Humes Pipeline Systems Mico Pipelines
AM-1.1.7	uPVC Pipes (solid wall) and Fittings for Gravity Applications (SN 16)	Reticulation mains and lateral / connections	AS/NZS 1254	Rubber ring jointed	Iplex Pipelines Ltd Marley New Zealand Limited RX Plastics Ltd	Keyplas RX Plastics Ltd Hynds Pipe Systems Ltd Humes Pipeline Systems Mico Pipelines
AM-1.1.8	uPVC Pipes (solid wall) and Fittings for shallow Applications (SN 16)	For gravity applications	AS/NZS 1477	Rubber ring jointed	Iplex Pipelines Ltd Marley New Zealand Limited RX Plastics Ltd	Keyplas Hynds Pipe Systems Ltd Humes Pipeline Systems

						Mico Pipelines
AM-1.1.9	Polyethylene Pipe (PE) PE100 SN8 and above	For gravity applications	AS/NZS 4130, 4131	Pipes will be butt welded in accordance with the manufacturer's recommendations, and the standard colored black with inner core color white/grey	Asmuss Water Systems Iplex Pipelines Ltd Euro flo non pressure PE wall pipes – Pandf Global	Asmuss Water Systems Hynds Pipe Systems Ltd Pand f Global Marley pipe
AM-1.1.10	Perforated Drainage Pipes or Mega flo or Similar Pipe for Subsoil.	Groundwater control	AS/NZS 1260	Includes products such as Novaflow, Megaflow, Novacoil or similar	Manufacturers who can supply to the relevant standards	Hynds Pipe Systems Ltd Humes Pipeline Systems Mico Pipelines
AM-1.1.11	Warning Tape/ Detector Tape					
AM-1.1.11.A	Warning / Detector Tape	Open Cut Installation	AS/ NZS 4275	<ul style="list-style-type: none"> ▪ Width – 100mm (min.) ▪ Thickness – 80mu ▪ Printing – TBC ▪ Printing Height – 80mm Tape must be detectable (foil or wire) and marked as stormwater	Polymark Packaging	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-1.1.B	Ductile Iron Fittings and Pipes	For detention basin drainage valves.	AS/NZS 2280:2014 ISO9001:2015		Derwent Industries Ltd	Hygrade, Hynds, Mico, Plumbing world, Pipe &

						Infrastructure, Water supply products
AM-1.1.C	PE Pipe	For stormwater pipe systems	AS/NZS 5065:2005	Rubber ring jointed	Hynds PKS NZ Ltd Infrapipe Ltd	Hynds PKS NZ Ltd Infrapipe Ltd Paramount Ltd
AM-1.2	Fittings					
AM-1.2.1	Bolts, Nuts, and Washers to be Hot-Dipped Galvanised as an Alternative to 316-Grade Stainless Steel	Preferred product to AM-1.3.5	AS/NZS 1111 and 1112	<ul style="list-style-type: none"> ▪ ISO metric hexagon commercial bolts and screws and ISO metric hexagon nuts, including thin nuts, slotted nuts and castle nuts ▪ Hot-dipped galvanised bolts, nuts and washers need to be wrapped in denso tape <p>This particularly applies for corrosive soil and marine conditio</p>	Manufacturers who can supply to the relevant standards	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-1.2.2	Stainless Steel Bolts, Nuts and Washers are the Preferred Acceptable Fastenings Provided that they are 316-Grade Stainless Steel with Factory	For connecting stormwater pipe flanges	Complying with AS 1252 High-strength steel fastenings	<ul style="list-style-type: none"> ▪ Stainless steel bolts, nuts and washers need to be wrapped in denso tape ▪ This particularly applies for corrosive soil and marine conditions ▪ Thread binding may occur and the bolts should be cut off if needed to be un-wound 	Manufacturers who can supply to the relevant standards	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-1.2.3	PE Fittings		AS/NZS 5065:2005	Agro Butt welding and Electro fusion fittings Viking Johnson Aqua fast, Aqua grip	Iplex Pipelines Ltd	Hygrade Products Ltd

				and Ultra grip mechanical fittings for Polyethylene Pipe Hawle System 2000 mechanical fittings for Polyethylene Pipe DureFuse Licence #9603049 Philmac Licence #1271 Pushlok Licence #1494 Plasson Licence #1494 and 1271 Alprene A16 Easygrip Licence #1157 GF – Compression Fittings Licence #1157 “Plassim” MDPE Fitting to AS/NZS 4129 – Licence #WMKA21062 “Magnum” MDPE Fitting to AS/NZS 4129 – Licence #SMK02432	Marley New Zealand Limited Asmuss Plastic Systems Limited PPI Corporation (NZ) Limited Waters and Farr RX Plastics Ltd	Humes Pipeline Systems RX Plastics Ltd Mico Pipelines
AM-1.2.4	uPVC Fittings	For gravity fittings only	AS/NZS 1260	<ul style="list-style-type: none"> ▪ RRJ fitting only to be used ▪ IPLEX Licence #SMK1174 Marley Licence #WMKA20224	Iplex Pipelines Ltd Marley New Zealand Limited	Keyplas Hynds Pipe Systems Ltd Humes Pipeline Systems Mico Pipelines
AM-1.2.5	SS shear band rubber Sleeves	Reticulation Pipes (non-pressure)	AS/NZS 4326	All couplings shall have a central 316-grade stainless steel sheer band	Fernco Pty Ltd	
AM-1.2.6	Bolted Unrestraint Couplers	For jointing spigot ends of pipes, other than PE, in water and sewerage applications.	AS/NZS 4998:2009		Derwent Industries Ltd Daemco	Hygrade Products Ltd Hynds Pipe Systems Ltd Mico Pipelines Plumbing world Pipe & Infrastructure Ltd
AM-1.2.7	Repair and Offtake Stainless Steel Clamps	For repairing cracks, seal for	AS 4181-2013		Derwent Industries Ltd	Hygrade Products Ltd

		decommissioned service connections, holes, splits and pinholes in rigid stormwater pipes.				Hynds Pipe Systems Ltd Mico Pipelines Plumbing world Pipe & Infrastructure Ltd
AM-1.3	PE manholes	For horizontal and or vertical junctions as well as inspection points.		PE manholes require a specific design, with particular emphasis on the lid connection details, benching radius, as well as flood/ leak/ vaccum testing of the entire manhole system up to the lid level. These designs must undergo review and approval from QLDC.	Hynds PKS NZ Ltd Infrapipe Ltd Romould technologies Ltd	Australasia Moulding Ltd, Hynds PKS NZ Ltd Infrapipe Ltd
AM-1.3A	Concrete manhole system					
AM-1.3.1	1050mm to 2500mm with a flange base	For horizontal and or vertical junctions as well as inspection points.	NZS 3114 NZS3109	Must comply with CPAA guidelines and design loading. Specific design and approval are required from QLDC for manholes >2500mm.	Humes Pipeline Systems Hynds pipeline systems limited	Humes Pipeline Systems Hynds Pipe Systems Ltd
AM-1.3.2	1050mm to 2500mm ID with bespoke Precast Base	For horizontal and or vertical junctions as well as inspection points.	NZS 3114 NZS3109	Hybencher manhole requires specific design and approval from QLDC.	Humes Pipeline Systems Hynds pipeline systems limited	Hynds Pipe Systems Ltd Mico Pipelines
AM-1.3.3	Concrete Lid (flat top) with 600m Openings	Covers to the manholes	NZS 3101: 2006	Must comply with the design loading and CPAA guidelines.	Humes Pipeline Systems Hynds Pipe Systems Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines

AM-1.3.4	Manhole Sealant, Flexible Jointing Compound	Sealant between manhole risers and lids		BM100 or SM9020	Humes Pipeline Systems Hynds Pipe Systems Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-1.3.5	Access Steps Hot-dipped Galvanised Steel PE coated access Step or 316-grade Stainless Steel	Accessing into manholes	EN 13101	<ul style="list-style-type: none"> ▪ Galvanised PE coated manhole steps – 20mm² ▪ Stainless manhole steps – 16mm² Avon Industries Part #AA25003 / Part #AA25004	Costavic Avon Industries	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-1.3.6	Plastic Encapsulated Stainless Steel Access Step	Accessing into manholes	AS/NZS 1657, AS 4198	Nextep License #JP-JQA-QM6570	Nextep Miyama NZ Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-1.3.7	Cast-Iron Covers and Frames: 600mm Nominal Diameter Minimum	Covers to the manholes	BS EN 124 vehicle loading or AS 3996 80kN load rating	Hinged and non-hinged are acceptable	Humes Pipeline Systems Hynds Pipe Systems Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Hygrade Products Ltd Pipe & Infrastructure Ltd Mico Pipelines

AM-1.3.8	Ductile Iron Covers and Frames: 600mm Nominal Diameter	Covers to the manholes	AS 3996 210kN (Class D) load rating	<ul style="list-style-type: none"> ▪ Includes “non-rock” ▪ Webforge NZ – Code DCC6DIPAC ▪ Gatic – Code GM300S6D3 ▪ St Gobain – Korum ▪ Hygrade – 600mm Maestro ▪ Minimum class d for trafficable areas and class b for non-trafficable. 	Gatic Pty Ltd Saint Gobain PAM Webforge NZ	<p>Humes Pipeline Systems</p> <p>Hynds Pipe Systems Ltd</p> <p>Hygrade Products Ltd</p> <p>Pipe & Infrastructure Ltd</p> <p>Mico Pipelines</p>
AM-1.3.9	Epoxy Mortar	Covering exposed steel in cut pipes	AS/NZS 4020: 2005	Two-part epoxy (e.g. Humebond, Hybond)	Manufacturers who can supply to the relevant standards	<p>Humes Pipeline Systems</p> <p>Hynds Pipe Systems Ltd</p> <p>Mico Pipelines</p>
AM-1.3.9	Concrete	Lid Surround	NZS 3104	20MPa	Manufacturers who can supply to the relevant standards	

AM-1.3.10	Manhole landing platform	Midway platform to the manhole for the deeper manholes		<ul style="list-style-type: none"> ▪ Caliber Safety Grill 02104076 Grill MH TCC Galvanised 500mm. ▪ Caliber Safety Grill 02104078 Grill MH TCC Maestro Galvanised 600mm. ▪ Caliber Safety Grill 02104079 Grill MH TCC Maestro Stainless Steel 600mm. ▪ All other products are subject to specific approval or trial installation. ▪ Humes 48502 - 520mm Nominal Safety Grille. ▪ Humes 48504 - 600mm Nominal Safety Grille. <p>Product requirements</p> <ul style="list-style-type: none"> ▪ The mesh size should be equal to or greater than 75mm square. ▪ If made of steel, it must be hot-dipped galvanised; if made of stainless steel, it should be of 316-grade stainless steel. This ensures compatibility with existing manhole structures without requiring significant modifications. ▪ The grill must be capable of locking securely onto the manhole and capable of withstanding a test load of at least 400kg. It should be easily removed by a single person within 5 minutes. ▪ A chain or similar mechanism 	<p>Hygrade Products Ltd</p> <p>Humes Pipeline Systems</p>	<p>Hynds Pipe Systems Ltd</p> <p>Humes Pipeline Systems</p>
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				<p>must be provided to ensure that the grill remains connected and does not fall into the manhole. This chain must be capable of supporting the weight of the grill.</p> <ul style="list-style-type: none">▪ The manufacturer's name and relevant product information must be clearly displayed. The installation of the grill should not introduce any additional health and safety concerns		
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1.3.11	Leveling rings	To adjust manhole covers to the surface level	NZS 3101 NZS 3109	<ul style="list-style-type: none"> Refer to the manufacturer guidelines for installation 	Hynds Pipe Systems Ltd	Hynds Pipe Systems Ltd
AM-1.4	Rodding Eyes					
AM-1.4.1	Reinforced Concrete Pipe	To create chamber	NZS 3107 – soon to be replaced with AS/NZS4058	600mm Ø cut to 600mm length.	Humes Pipeline Systems Hynds Pipe Systems Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-1.4.2	Cast-Iron Cover and Frames 600mm Nominal Diameter minimum	Covers to the rodding eyes	BS EN 124 vehicle loading or AS 3996 load rating			Humes Pipeline Systems Hynds Pipe Systems

						Ltd Hygrade Products Ltd Pipe & Infrastructure Ltd Mico Pipelines
AM-1.4.3	Ductile Iron Cover and Frames 600mm Nominal Diameter minimum	Covers to the rodding eyes	AS 3996 210kN (Class D) load rating	<ul style="list-style-type: none"> ▪ Hygrade 600 HD Hytec cover and frame ▪ Hinged and non-hinged are acceptable ▪ Minimum class d for trafficable areas and class b for non-trafficable. 	Humes Pipeline Systems Hygrade Products Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Hygrade Products Ltd Pipe & Infrastructure Ltd Mico Pipelines
AM-1.4.4	uPVC Fitting and Bends	Inspection structure (Pipe inspection fittings)	AS/NZS 1260	<ul style="list-style-type: none"> ▪ 45 degree swept bend ▪ Solvent welded threaded male fitting Threaded cap 	Iplex Pipelines Ltd Marley New Zealand Limited	Keyplas Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-1.5	Inlet/Outlet					

AM-1.5.1	Precast Concrete Wingwalls	For Stormwater culvert pipes Inlet/ Outlet	NZS3101	Refer QLDC COP 4.3.9.6, QLDC standard construction drawings B4-1, B5-15 and B5-16.	Humes Pipeline Systems Hynds Pipe Systems Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd
AM-1.6	Sumps	Precast concrete Components Sump flat top. Sump top (back entry) Rectangular sump barrel	NZS3101	Refer QLDC COP 4.3.14, QLDC standard construction drawings B5-10, B5-11, B5-13 and B5-16.	Humes Pipeline Systems Hynds Pipe Systems Ltd	Hynds Pipe Systems Ltd Humes Pipeline Systems
AM-1.6.1	Frames and Grates	Covers to the sumps	AS3996 EN124	<ul style="list-style-type: none"> ▪ 675mm x 450mm cast-iron grate and frame ▪ 300mm Ø cast-iron grate to suit socket of 225mm Ø culvert pipe ▪ 300mm Ø cast-iron grate to suit socket of 225mm Ø culvert pipe ▪ 610mm x 310mm galvanised web grate and frame 610mm x 310mm galvanised web grate and frame 	Humes Pipeline Systems Hynds Pipe Systems Ltd	Hynds Pipe Systems Ltd Humes Pipeline Systems Hygrade Products Ltd Pipe & Infrastructure Ltd
AM-1.6.2	High-Capacity Sumps	Where the carriageway longitudinal gradient exceeds 12%	NZS3101	<ul style="list-style-type: none"> ▪ Super pits, mega pits, max pits 610mm x 310mm galvanised web grate and frame 		Humes Pipeline Systems Hynds Pipe Systems Ltd Hygrade Products Ltd
AM-1.7	Storage					

AM-1.7.1	Geocellular Stormwater Storage System	For surface water infiltration or storage.	14/5099 by BBA PB-180071 by Selle Consultant	Requires specific design and approval from QLDC.	ACO Group Ltd	ACO Limited New Zealand.
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