

DESIGN SPECIFICATIONS

3.0 WATER SYSTEM

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
3.2.2.10	Water Main Size	Water main in cul-de-sacs adjusted to 100mm DI .
3.2.3.1	Water Main Material	Added Wire Bond Jumper Strap requirements.
3.2.4	Valves	Added guidelines for valve placements at end of development phases.

4.0 WASTEWATER SYSTEM

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
4.2.5.1	Wastewater Service Connection General Req.	Added guidelines for the allowance of couplings along a Wastewater Service Connection.
4.3.9.7	Force Main Velocity	Specified minimum and maximum velocity for wastewater force mains.

5.0 STORMWATER SYSTEM

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
5.5	Stormwater System Design	Removal of the $\pm 10\%$ allowance related to pre & post development stormwater balancing.
5.5.1.14	Stormwater Catch Basin	Adjusted wording concerning stormwater treatment unit requirements.
5.5.2.1	Stormwater Service Connection	Added requirement of when a property has access to a Combined and Stormwater System, the Stormwater Service Connection must connect to the Stormwater System. & Added guidelines for the allowance of couplings along a Stormwater Service Connection.

7.0 DRAWING REQUIREMENTS

<i>Section</i>	<i>Title</i>	<i>Revision Information</i>
7.3.2	Delivery Format	Added list of digital delivery requirements in introductory statement.

SECTION 33 11 00 – WATER MAINS

PART 2 - PRODUCTS

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
2.7	Polyethylene Encasement	Adjust Polyethylene Encasement requirement to V-Bio or approved equivalent.
2.12.2	Air Release, Air/Vacuum & Combination Air Valves – 50mm diameter to AWAA C512	Adjusted wording to match configuration of Standard Detail.
2.13	Pressure Reducing Valves	Added in-line strainer requirement.
2.14	Valve Boxes	Updated guidelines for cover markings. & Removed Type 2, Type 3, & Type 4 adjustments.
2.15	Hydrants	Corrected to include Bennery Lake in the East Region for hose/pumper ports. & Updated Specified Paint.
2.23	Insulation	Added clarifying wording.

PART 3 – EXECUTION

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
3.3	Pipe Installation	Removed requirement for installation of anti-corrosion petrolatum paste, tape and mastic to valve and hydrant flange nuts and bolts and valve bonnet nuts and bolts.
3.8	Hydrant Installation	Added requirement for new hydrant installations in greenfield sites.
3.13	Connections to Existing Main	Added offline testing requirements.
3.14	Water Service Connections	Added offline testing requirements. & Added anchor tee as approved method of installation for water service connection 100mm & greater.

SECTION 33 31 00 – WASTEWATER MAINS

PART 2 – PRODUCTS

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
2.9	Service Pipe	Added standards for service couplings.

SECTION 33 32 11 – WASTEWATER PUMP STATIONS

PART 2 – PRODUCTS

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
2.3	Submersible Pump Hatch Accessories	Removed Stainless Steel as material type for lifting chains.

SECTION 33 39 00 – MANHOLES, CATCH BASINS & STRUCTURES

PART 1 – GENERAL

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
1.3	Reference Standards	Addition of Reference Standard.

PART 2 – PRODUCTS

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
2.5	Waterproofing	Added combined manholes to standard.
2.9	Flexible Rubber Connectors	Added new product to section.

SECTION 39 00 00 – STANDARD DETAILS

<i>Drawing No.</i>	<i>Title</i>	<i>Key Revision Information</i>
HWSD – 1020	POLYETHYLENE ENCASUREMENT ON DUCTILE IRON WATER MAINS	Updated wording to reflect new V-Bio Polyethylene Encasement requirement.
HWSD – 1022 *NEW*	WIRE BOND JUMPER STRAPS	New Standard Detail.
HWSD – 1036	CUL-DE-SAC WATER MAIN REDUCTION	Water main in cul-de-sacs adjusted to 100mm DI .
HWSD – 1100	HYDRANT INSTALLATION RURAL STREET	Added a 300mm radius of type 1 around the hydrant detail. Added geosynthetic filter fabric encasing the clear stone.
HWSD – 1110	HYDRANT INSTALLATION URBAN STREET	Added a 300mm radius of type 1 around the hydrant detail. Added geosynthetic filter fabric encasing the clear stone.
HWSD – 1160	STANDARD SERVICE CONNECTION FROM WATERMAIN TO HOUSE	General formatting updates.

	PLUMBING URBAN STREET (WITH SIDEWALK)	
HWSD – 1182	WATER SERVICE CONNECTION FOR SLAB ON GRADE CONSTRUCTION	Added link seal and pipe to top figure. Corrected reference in Note 5.
HWSD – 1240	EXISTING WASTEWATER SERVICE CONNECTION REPAIR DETAIL	General formatting updates.
HWSD – 1250	REQUIRED MINIMUM CLEARANCES BETWEEN UNDERGROUND CONDUITS AND WATER SYSTEM	Added wording to indicate clearances are as per the most stringent requirements (HW or Conduit Utility).
HWSD – 1270	PIPE SUPPORT DETAIL	General formatting updates.
HWSD – 1290	PRV CHAMBER PLAN	Adjusted piping configuration, added in-line strainer.
HWSD – 1340	METER CHAMBER FOR WATERMANS	Removed reference to PVC, added butyl resin-cord (Ram-Nek).
HWSD – 1450	PRECAST MANHOLE	Adjusted waterproofing wording.
HWSD – 1470	PRECAST INTERNAL DROP MANHOLE SECTION	Added butyl resin-cord (Ram-Nek).
HWSD – 1480	PRECAST EXTERNAL DROP MANHOLE SECTION	Added butyl resin-cord (Ram-Nek).
HWSD – 1510	BUILDING SERVICE CONNECTION – PROFILE VIEW	Added notes to allow PVC couplings along a Wastewater/Stormwater Service Connection.
HWSD – 1520	STANDARD 50 mm PRESSURIZED WASTEWATER SERVICE CONNECTION	Removed incorrect reference from notes.
HWSD – 1530	RESIDENTIAL SERVICE CONNECTION ACCESS TE	Adjusted access point plate size.
HWSD – 1564	COMBINED SERVICES CONNECTION DETAIL OVER & UNDER DUPLEX SINGLE FAMILY DWELLING	Adjusted the stormwater service connection to tie into the wastewater service connection in the ROW after the curb line.
HWSD – 1566	COMBINED SERVICES CONNECTION DETAIL FOR ICI BUILDINGS	Adjusted the stormwater service connection to tie into the wastewater service connection in the ROW after the curb line.
HWSD – 1568	COMBINED SERVICES CONNECTION DETAIL FOR ICI BUILDINGS ZERO SETBACK	Adjusted the stormwater service connection to tie into the wastewater service connection in the ROW after the curb line.
HWSD – 1570	1050 mm PRECAST CATCHBASIN	Added butyl resin-cord (Ram-Nek).
HWSD – 1628	INLET GRATE DETAIL	Added note that inlet grate spacing to be 200mm.
HWSD – 1640	HRM CORE BOUNDARY MAP	Adjusted to reflect new boundary.

DS8 – VALVE ATTRIBUTE LIST

<i>Section</i>	<i>Title</i>	<i>Key Revision Information</i>
-	Key Number	Updated Descriptions for Key Number Code 1, 2 & 3.