Consultant's 'As Constructed' Survey Certification Check List

This check list shall be used to guide the user through the activities required to meet "as-constructed" specifications defined within Melbourne Water Survey as per the Land Development Website.

Drainage Agreement Details

Job Title: _____

Municipality: _____

Developer: _____

Consultant: _____

Nominated Rep.: _____

Consultant Ref.: _____

Melbourne Water EPMS Ref.: ____/_____

Recording of "As-Constructed" Detail

1.	General	Initials
1.1.	All documentation has been adequately labelled with drain numbers and name and section number of works as per the Works Offer	_____
1.2.	Date of construction completion has been noted	_____
1.3.	The original design plans have been annotated and updated to "As Constructed"	_____
1.4.	Addendum plans have been created due to constructed works being significantly different to design	_____
1.5.	Addendum plans have been created due to inability to annotate the original design plans	_____
1.6.	Addendum plan numbers have been agreed to by Melbourne Water	_____
1.7.	All Manholes have unique numbers	_____
1.8.	Sheets containing "as-constructed" data have been certified and signed by a licensed surveyor or VeriSign for electronic documents	_____
1.9.	All constructed works that are not in accordance with design have been appropriately noted (i.e. new alignments, different materials, structural	_____

sizes)

1.10.	Submission to consist of only digital files where PDFs are certified using Verisign digital security technology (Signed A1 hardcopy accompanied by digital data as per Section 10 of this Checklist may be provided if digital signature services are not available)	_____
1.11.	Each drawing shall be in a separate pdf file and oriented to landscape layout	_____

2. Offset, Ties and MGA co-ordinates

2.1.	All the centrelines of underground pipelines, open channels and levee banks have been appropriately recorded in relation to title	_____
2.2.	MGA co-ordinates have been provided where the subdivision was duly co-ordinated	_____
2.3.	MGA co-ordinates have been determined for appropriate title corners	_____
2.4.	Manhole and structures have been appropriately related to title	_____
2.5.	Datum for co-ordinates have been annotated on the design plans	_____

3. Longitudinal Section

3.1.	The longitudinal section has been annotated with invert levels and running chainages	_____
3.2.	Invert levels have been taken at tangent points, inlets and outlets of structures, start and end transitions, changes of grade, fittings (including manholes) and any aprons	_____
3.3.	Running chainages have been established for each of the invert levels	_____
3.4.	Pipe and/or channel grades have been recomputed and updated where significantly different to design by 15% or greater.	_____
3.5.	Datum points for establishing AHD have been annotated on the design plan	_____

4. Cross Sections

4.1.	Cross-sections have been annotated with levels and offsets	_____
4.2.	Cross-sections show the relationship to title where appropriate	_____
4.3.	Each of the cross-sections has been identified with a running chainage	_____
4.4.	The "as-constructed" cross-sections have been superimposed over the design cross sections where there is significant difference	_____
4.5.	Cross-sections show applicable 1 in 100 ARI flood level	

5. Structural Details

5.1.	The cover levels of each structure have been annotated on the structural schedule	_____
5.2.	The structural schedule has been updated with inlet and outlet inverts	_____
5.3.	Detailed inserts have been updated with dimensions where significantly different to design	_____

6. Sizes, Materials and Stubs

6.1.	The structure schedule has been updated with inlet and outlet pipe sizes	_____
6.2.	Where the constructed Works have been built with different materials, these has been noted on the design plans	_____
6.3.	Invert levels have been established for both ends of the stub pipe	_____
6.4.	The direction of the stub has been determined	_____

7. Feature Plans

7.1.	Spot Levels have been annotated on the design plans	_____
7.2.	Where separate feature plans have been prepared, they contain spot levels and generated contours	_____

7.3.	Features such as edges of wetlands or Retarding Basins, Normal Water Level and Top of Extended Detention Depth have been delineated	_____
7.4.	A condensed long section is provided where required depicting major roads, major obstacles, major topographical features, river/creek crossings.	_____
7.5.	A limited amount of text is provided to assist with interpretation, such as manhole numbers, descriptions of unusual features, or road names. Line strings may be used to identify the location of 'as constructed' cross sections	_____
7.6.	1 in 100 ARI flood levels and extents for wetlands, retarding basins and waterways	

8. Lakes, retarding basins and wetlands

8.1.	All water bodies and embankments are clearly shown	_____
8.2.	Spot levels and generated contours where appropriate (i.e. spot levels may be more appropriate than cross sections)	_____
8.3.	"As Constructed" Normal Top Water Level (NTWL) must be labelled and delineated on all control structures (including but not limited to the IL AC levels of the concrete notch of the twin chamber outfall pit, penstock AC levels, rock chute notch IL AC levels and weir AC levels).	_____
8.4.	A 350 mm or 400 mm contour below NTWL must be labelled and delineated	_____
8.5.	Reduce Level (RL) for NWL and Top of Extended Detention Depth (TEDD) must be labelled and delineated	_____
8.6.	Planting 'zones' – typically these would be 'ephemeral marsh', 'shallow marsh', 'deep marsh' and 'submerged marsh' (or some similar nomenclature), open water	_____
8.7.	Pit details (including side winding penstock valve, gate valve, concrete notch , etc.)	_____
8.8.	Maximum Embankment Crest Height (m)	

8.9.	Embankment Crest Level (AHD)	
8.10.	Top Water Level to Spillway Crest (AHD)	
8.11.	Spillway Crest Level (AHD)	
8.12.	Link to provided MUSIC model/functional design report	_____
8.13.	Catchment size and shape (may be linked to MUSIC model)	_____

9. Sediment Ponds

9.1.	"As Constructed" Normal Top Water Level (NTWL) must be labelled and delineated	_____
9.2.	A 500 mm contour (below NTWL)	_____
9.3.	Base of pond (BOP)	_____
9.4.	If BOP is 'hard' (rock)	_____
9.5.	The designated sediment drying area	_____
9.6.	Catchment size specified	_____

10. Digital Data

10.1.	Digital data has been supplied	_____
10.2.	File names are in accordance with the Melbourne Water Planning and Building website	_____
10.3.	Digital Data includes the relationship to title boundaries	_____
10.4.	CAD files shall be delivered in a single package such as a zip file and contain all reference and system files	
10.5.	Supplied data is submitted electronically via email, file transfer weblink, a formatted CD or memory stick	_____