

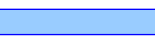
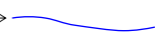
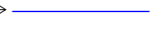
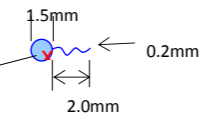
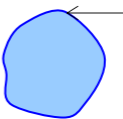
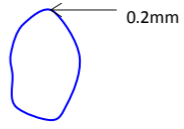
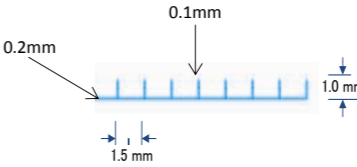
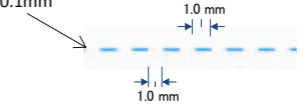
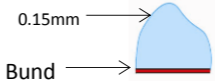



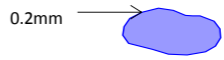
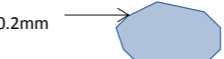

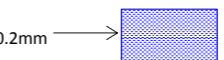
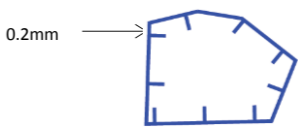
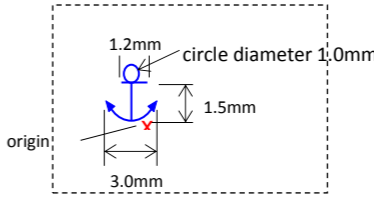
Map symbols for 1:10,000 scale Digital Topographic Map

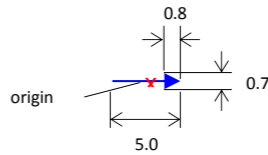
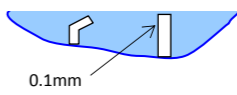
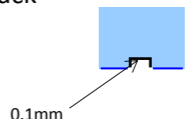
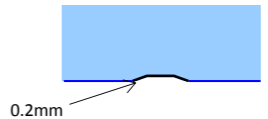
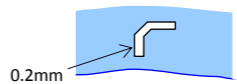
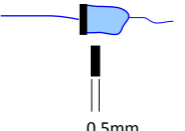
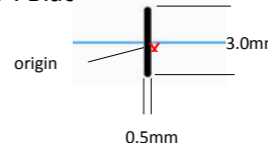
Survey Department

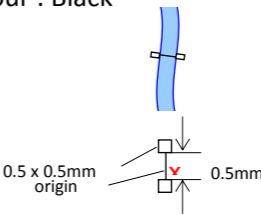
3.0 Hydrography

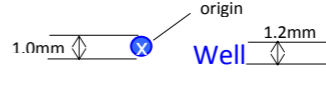
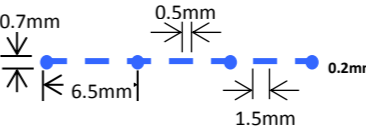
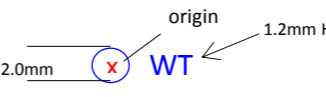
No.	Feature Class	Data Class	Feature Name	Data Type	Definition	Acquisition criterion	Data Acquisition method	Symbol (Shape and Size)
	Hydrography	Water area	Shore lines 水涯線	line	The land at the edge of ocean.	All the shore line should be plotted.	Data will be acquired by the photo interpretation. The land along the edge of an ocean shall be plotted.	Colour : Blue 0.15mm 
	Hydrography	Water area	Canals, Rivers and Streams (at scale) 運河、河川及び小川	polygon	A canal is a long narrow stream to transport water. A river is a natural and continuous flow of water in a long line across a country into an ocean, lake etc. A stream is a small scaled natural water flow. It is narrower than a river.	The canal, river and stream whose width is more than 5m should be plotted.	Data will be acquired by the photo interpretation. The boundary of a canal, river and stream shall be plotted. The direction of plotting is a clockwise. The under the bridge of this features is expressed by a hidden lines.	Colour : Blue 0.15mm  0.15mm 
	Hydrography	Water area	Canals, Rivers and Streams (symbol)	line	- do -	The canal, river and stream that the width is less than 5m should be plotted.	Data will be acquired by the photo verification. The centre of a canal, river and stream shall be plotted.	Colour : Blue 0.1mm  0.1mm 
	Hydrography	Water area	Fountainheads (spring/fountains) 源泉(湧水、泉)	point	A place where water comes up naturally from the ground.	The fountainhead that is identified by the field identification should be plotted.	The data will be acquired in the field verification. The centre of fountainheads shall be plotted.	Colour : Blue 1.5mm  origin 0.2mm 2.0mm
	Hydrography	Water area	Lake	polygon	A large area of water surrounded by land.	The lake whose size is more than 10m by 10m should be plotted.	Data will be acquired by the photo interpretation. The edge of water shall be plotted. The direction of plotting is clockwise.	Colour : Blue 0.2mm 

No.	Feature Class	Data Class	Feature Name	Data Type	Definition	Acquisition criterion	Data Acquisition method	Symbol (Shape and Size)
	Hydrography	Water area	Pond	polygon	A small fresh water area whose area is smaller than a lake.	The pond whose size is more than 10m by 10m should be plotted.	- do -	Colour : Blue 
	Hydrography	Water area	Irrigation Canal 用水路	line	The canal that supply land or crops with water.	The irrigation canal having more than 100m long should be plotted. The irrigation canal connected other irrigation canals whose length are less than 100m long should be plotted.	The data will be acquired by the photo interpretation and the field verification. The centre of irrigation canal shall be plotted. The direction of plotting is clockwise.	Colour : Blue 
	Hydrography	Water area	Abandoned Irrigation Canal	line	The abandoned irrigation canal that supply land or crops with water.	The abandoned irrigation canal whose has more than 100m long should be plotted. The abandoned irrigation canal connected other abandoned irrigation canal whose has less than 100m long should be plotted.	The data will be acquired in the photo interpretation. The centre of abandoned irrigation canal shall be plotted.	Colour : Blue 
	Hydrography	Water area	Tank ダム(貯水部)	polygon	A reservoir that is associated with a dam.	The tank that is visible on the aerial photography should be plotted.	The data will be acquired by the photo interpretation and the field verification. The boundary of tank shall be plotted. The direction of plotting is clockwise.	Colour : Blue 
	Hydrography	Water area	Abandoned Tank	polygon	A abandoned reservoir that is associated with a dam.	The abandoned tank that is visible on the aerial photography should be plotted.	The data will be acquired by the photo interpretation. The boundary of abandoned tank shall be plotted. The direction of plotting is clockwise.	Colour : Blue 

No.	Feature Class	Data Class	Feature Name	Data Type	Definition	Acquisition criterion	Data Acquisition method	Symbol (Shape and Size)
	Hydrography	Water area	Reservoir Area 貯水池	polygon	A lake, especially an artificial one, where water is stored before it is supplied to people's houses.	The reservoir area that is visible on the aerial photography should be plotted.	The data will be acquired by the photo interpretation. The boundary of reservoir area shall be plotted. The direction of plotting is clockwise.	Colour : Blue 
	Hydrography	Water area	Lagoon Area 潟湖	polygon	An area of ocean that is not very deep, and that is almost completely separated from the ocean by rocks, sand, etc.	The lagoon area that is visible on the aerial photography should be plotted.	The data will be acquired in the photo interpretation. The boundary of lagoon area shall be plotted. The direction of plotting is clockwise.	Colour : Blue 
	Hydrography	Water area	Water Hole 水たまり	polygon	A watering hole	The water hole that is visible on the aerial photography should be plotted.	The data will be acquired by the photo interpretation. The boundary of water hole shall be plotted. The direction of plotting is clockwise.	Colour : Blue 
	Hydrography	Water area	Pool	polygon	A hole that has been specially built and filled with water so that people can swim in it.	The pool that is visible on the aerial photography should be plotted.	The data will be acquired in the photo interpretation and the field verification. The boundary of pool shall be plotted. The direction of plotting is clockwise.	Colour : Blue 
	Hydrography	Water area	Villu 貯水池	polygon	A villu is a kind of reservoir pond that is fulfil with water in the rainy season and supply water to cultivated areas in the dry season.	All the villu should be plotted.	The data will be acquired by the field verification. The boundary of villu shall be plotted. The direction of plotting is clockwise.	Colour : Blue 
	Hydrography	Water area	Anchorage Area 繫留地	point	A place where ships can anchor.	All the anchorage area should be plotted.	The data will be acquired in the field verification. The centre of anchorage area shall be plotted and the boundary of area shall be also plotted with a boundary of territory/zone.	Colour : Blue 

No.	Feature Class	Data Class	Feature Name	Data Type	Definition	Acquisition criterion	Data Acquisition method	Symbol (Shape and Size)
	Hydrography	Water area	Flow Arrow 流水方向	point	A direction of flow in a river.	The flow arrow that is identified in the field identification should be expressed.	The data will be acquired in the field verification. For river width more than 8m, A flow arrow shall be expressed at the centre of river. For single river expression, a flow arrow shall be expressed on a river (?) .	Colour : Blue 
	Hydrography	Water facilities	Pier-Jetty 棧橋	line	A wide built out into the water, especially so that boats can stop next to it.	The pier-jetty that has more than 10m width and 20m long should be plotted.	The data will be acquired by the field verification. The edge of pier-jetty shall be plotted.	Colour : Black 
	Hydrography	Water facilities	Wharf 埠頭	line	A structure that is built out into the water so that boats can stop next to it.	All the wharf should be plotted.	The data will be acquired in the field verification. The edge of wharf shall be plotted.	Colour : Black 
	Hydrography	Water facilities	Revetment (Retaining Wall at the coast) 護岸	line	A surface of stone or other buildings materials that is added to give strength to a wall that holds back loose water.	The revetment whose more than 20m long should be plotted.	The data will be acquired by the field verification. The edge of revetment shall be plotted.	Colour : Black 
	Hydrography	Water facilities	Breakwater 防波堤	polygon	A large strong wall built out into the ocean to protect the shore from the force of the waves.	The breakwater that is more than 20m long should be plotted.	The data will be acquired in the field verification. The edge of breakwater shall be plotted.	Colour : Black 
	Hydrography	Water facilities	Dam	line	A special wall built across a river, stream etc. to stop the water from flowing, especially to make a lake or produce electricity.	The dam that is visible on the aerial photography should be plotted.	The data will be acquired in the field verification. The centre of top of dam shall be plotted.	Colour : Black 
	Hydrography	Water facilities	Anicut インド式のダム	point		The anicut that is visible on the aerial photography should be plotted.	The data will be acquired in the field verification. The centre of anicut shall be plotted.	Colour : Black 

No.	Feature Class	Data Class	Feature Name	Data Type	Definition	Acquisition criterion	Data Acquisition method	Symbol (Shape and Size)
	Hydrography	Water facilities	Bund 堤防	line	A wall or bank built to keep back water and prevent flooding.	All the bund should be plotted.	The data will be acquired by the photo interpretation. The centre of bund shall be plotted.	Colour : Brown 
	Hydrography	Water facilities	Abandoned Bund 堤防/放棄されたもの	line	An abandoned bund.	All the abandoned bund should be plotted.	The data will be acquired in the field verification. The centre of abandoned bund shall be plotted.	Colour : Brown 
	Hydrography	Water facilities	Spill 放水施設	point	A passage for water to flow through river, with a special gate that can be opened or closed to control the flow.	All the spill should be plotted.	The data will be acquired in the field verification. The centre of spill shall be plotted. The tip of symbol shall be connected river.	Colour : Black 
	Hydrography	Water facilities	Sluice 水門	point	A passage for water to flow through canal, with a special gate that can be opened or closed to control the flow.	All the sluice should be plotted.	The data will be acquired in the field verification. The centre of spill shall be plotted. The tip of symbol shall be connected canal.	Colour : Black 
	Hydrography	Water facilities	Weir 堰	point	A low structure built across a river or stream to control the flow of water.	All the weir should be plotted.	The data will be acquired by the field verification. The centre of weir shall be plotted. The break line of symbol shall be opened onto a headwaters.	Colour : Black 
	Hydrography	Water facilities	Flood Gate 水門	point	A gate used to control the flow of the water from river.	All the flood gates should be plotted.	The data will be acquired by the field verification. The centre of flood gate shall be plotted. The symbol shall be expressed perpendicular with a river.	Colour : Black 

No.	Feature Class	Data Class	Feature Name	Data Type	Definition	Acquisition criterion	Data Acquisition method	Symbol (Shape and Size)
	Hydrography	Water facilities	Well	point	A deep hole in the ground from which people take water.	All the well should be plotted.	The data will be acquired by the field verification. The centre of well shall be plotted.	Colour : Blue 
	Hydrography	Water facilities	Water Tunnel 地下水道	line	A passage that has been dug under the ground, through a mountain etc, for water.	The water tunnel that is identify in the field identification or in the document from a relevant organization shall be plotted.	The data will be acquired by the field verification. The centre of water tunnel shall be plotted.	Colour : Blue 
	Hydrography	Water facilities	Water Tank 貯水槽	point	A large container for storing water.	The water tank that has more than 10m diameter be plotted.	The data will be acquired by the photo interpretation. The centre of water tank shall be plotted.	Colour : Blue 
	Hydrography	Water facilities	Water Fall 滝	point	A place where water falls straight down over a cliff or rock.	The water fall that is identify in the field identification should be plotted.	The data will be acquired in the field verification. The top and centre of waterfall shall be plotted.	Colour : Blue 