

## ***Series 500: Drainage and Service Ducts***

### **1 Tabulated Billing**

The billing of pipe runs of varying diameter and specification with their attendant adjustment items produces a lengthy Series 500 bill. It is suggested that a tabulated method is used as shown in the example overleaf. This method will reduce the repetition of item descriptions. This method can also be extended to manholes and chambers.

Where non-standard or small quantities exist they would be best billed in the traditional manner.

### **2 Drainage and Service Ducts in Structures**

The extent of the quantities included in the item for drainage and service ducts to a structure and their interface with non-structural drainage should be clearly shown on the drawings. The quantities making up this item should either be scheduled in an appendix or on a drawing of the structure.

### **3 Alternative Types of Pavement**

There is no requirement to provide separate drainage Bills of Quantities corresponding with each alternative Type of Pavement. Measurement of drainage must be based upon the thinnest construction permitted for any of the alternative Types of Pavement irrespective of the Type of Pavement chosen by the Contractor.

**Tabulated Drainage Example**

**1. Drains and Sewers**

Item	Description				Unit	Quantity	Rate	€
	A mm internal diameter drain or sewer specified trench and bedding type or design group 'B' in trench depth to invert exceeding 2 metres, but not exceeding 4 metres, average depth to invert 'C' metres							
	Adjustment on this item for variation greater than 150mm above or below the average depth of 'C' metres per 25mm of variation in excess of 150mm. Rate per metre 'D' (not to be extended)							
	'A'	'B'	'C'	'D'				
	dia	trench and bedding type or design group	ave. depth	adjust. rate				
21	150	A	2.625		m	54		
22	225	E	2.950		m	18		
23	300	C	2.875		m	78		
24	450	H	3.275		m	157		

**2 Chambers**

Item	Description					Unit	Quantity	Rate	€
	Specified chamber type 'A' with 'B', 'C' and frame depth to invert exceeding 'D' metres but not exceeding 'E' metres.								
	'A'	'B'	'C'	'D'	'E'				
	chamber type	cover grade	cover type	depth min.	range max.				
76	C	D400	cover	1	3	no	10		
77	C	C250	cover	1	3	no	60		
78	D	D400	cover	3	5	no	70		
79	D	C250	cover	3	5	no	55		