



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
MANILA

DPWH 13

03.26.2008

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DEPARTMENT ORDER)

SUBJECT : DPWH Standard Specification for
Drain Pipe, Item 517

No.

15

Series of 2008

X-X-X-X-X-X-X-X

In line with the mandate of the Department in providing effective standard specifications to be used in the implementation of various infrastructure projects and in view of the need of setting standard specifications for drain pipe, the attached **DPWH Standard Specification for Drain Pipe, Item 517**, is hereby prescribed, for the guidance and compliance of all concerned.

This specification shall form part of the revised edition of the DPWH Standard Specifications (Volume II-Highways, Bridges and Airports).

This Order shall take effect immediately.

HERMOGENES E. ERDANE, JR.
Secretary



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DPWH STANDARD SPECIFICATION FOR

ITEM 517 – DRAIN PIPE

517.1 Description

This item shall consist of installing drain pipes, fastened with steel straps that are either bolted to pier copings or welded to steel girders in various locations of the bridge, or as indicated in accordance with this Specification and in conformity with the lines, grades and dimensions shown in the Plans or as established by the Engineer.

517.2 Material Requirements

Polyvinyl chloride (PVC) pipe shall meet the requirements specified in one of the following specifications: ASTM D3034, D2241, D1785, D 2665, D2680, F789, F679 or AASHTO M 304M (D2729).

Galvanized iron pipe shall meet the requirements specified in one of the following specifications: ASTM A53, AASHTO M 36 or M 218.

Steel strap shall meet the requirements of Item 712, Structural Metal; Item 409, Welded Structural Steel, and Item 411, Paint, DPWH Standard Specifications, Volume II, Highways, Bridges and Airport.

Anchor bolts and bolts fastener shall meet the requirement of Item 712, Structural Metal, DPWH Standard Specifications, Volume II, Highways, Bridges and Airport.

Paint materials shall conform to the requirements of Item 709, Paints, DPWH Standard Specifications, Volume II, Highways, Bridges and Airport.

517.3 Construction Requirements

Pipes installed shall conform with the lines and grades shown in the plans or as established by the Engineer. Drain pipe extension, if needed shall be attached to the ends of existing drain pipes either using pipe sleeves or pipe with bell sockets. The length of the extension shall depend on the existing drain pipe condition and the location as shown in the Plans and shall not be lower than the required vertical clearance or as directed by the Engineer.

Pipes and fittings shall be homogenous throughout and free from visible cracks, holes, foreign inclusions or other injurious defects. Pipes installed shall be as uniform as commercially practical in color, opacity, density and other physical properties.

Fabrication of steel straps shall conform to the dimensions shown in the Plans and must be galvanized. Steel strap, unless otherwise specified, shall be coated with two shop coats of red lead paint and two field coats of paint as specified under Item 411, Paint, DPWH Standard Specifications, Volume II, Highways, Bridges and Airports.

Anchor bolts shall be placed as provided under Item 403, Metal Structures, DPWH Standard Specifications, Volume II, Highways, Bridges and Airports or as shown on the Plans.

Welded connections shall conform to the requirements of Item 409, Welded Structural Steel, DPWH Standard Specifications, Volume II, Highways, Bridges and Airports.

517.4 Method of Measurement

Drain pipe shall be measured by the linear meter for pipe of the type and size specified.

517.5 Basis of Payment

The accepted quantities, determined as provided in Section 517.4, Method of Measurement of the Pay Items in the Bill of Quantities will be paid for at the contract unit prices, which shall constitute full compensation for furnishing and placing all materials and for all labor, equipment, tools and incidentals necessary to complete the Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
517	Drain Pipe	Linear Meter

REFERENCES:

1. DPWH STANDARD SPECIFICATIONS FOR PUBLIC WORKS AND HIGHWAYS, VOLUME II, HIGHWAYS, BRIDGES AND AIRPORT.
2. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
3. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
4. INTERNET

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