



Specifications For Manufactured Materials

Section: FLASHING LIGHT

Subject: POLES, CONNECTIONS AND COMPONENTS

- INTRODUCTION** Standard metal poles, delineation lighting poles and davit poles should be used to support flashing signal lights. Pole support bases and signal heads must also meet standard specifications.
- POLE TYPE** All poles shall be standard poles designed to support a signal head and sign with a maximum projected area of 1.8 m². All poles will be mounted so the hand hole is away from the traffic. Standard pole details are illustrated in figures 1510-1-1, 1510-1-2 and 1510-1-3.
- POLE COLOUR** All metal poles and davit arms shall be painted highway yellow. The colour of delineation light poles can not be changed from their original colour which is usually green because they are owned by SaskPower Corporation.
- TENON SIZE** All poles shall be fitted with a standard tenon which shall have a 48 mm outside diameter, a 75 mm length and a straight pipe thread of 1½ inch I.P.S. (11½ threads per inch).
- SIGNAL HEADS** All flashing signal lights shall be installed with 300 mm signal heads with a 116 W bulb. For any existing 200 mm signal heads the correct bulb is 69 W. Regardless of what colour pole the signal head is being attached to, the signal head must be highway yellow. Signal head housings of high strength corrosion resistant aluminum alloy die cast are recommended.
- When purchasing lamps, 130 V traffic signal lamps rated for 8000 h of life should be specified.
- FLASHERS** Flashers should be installed complete with circuit breakers in a weather proof electric cabinet mounted on the back of the signal head. If two beacons must operate in alternating mode a double flasher must be specified. All flashers must be solid state with a plug in base.
- MOUNTING HARDWARE** All mounting hardware shall be galvanized steel, painted highway yellow.
- VISORS** Visors should be yellow on the outside and flat black on the inside.
- BASE PLATE** All poles shall be fitted with a base plate which can accommodate 25 mm anchor rods on a 205 mm square or 290 mm bolt centre diagonal.

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BASE TYPE

All bases shall be concrete with 25 mm anchor bolts set into the concrete. The anchor bolts shall extend not less than 57 mm and not more than 83 mm from the upper surface of the base. The concrete of the base should extend at least 76 mm beyond the bolt square on all sides. All anchor bolts shall come with washers and retaining nuts.

Pull apart electrical connections must be used with all frangible bases to ensure that the post or pole will break off if struck by a vehicle. All electrical connectors must be water proof and shatter resistant.

**MANITOBA
SAFE-T-BASE**

The most common breakaway base used is a Manitoba Safe-T-Base, complete with slotted reaction plate, reaction nuts, coupler assemblage and shroud. The reaction plates shall be slotted to accommodate either a 205 mm square or 290 mm bolt centre diagonal.

The base shall be side slotted to accommodate conversion of an existing conventional signal installation. The external surface of the shroud shall be yellow in colour.

GROUND RODS

Grounding rods should be 3.0 m in length and be at least 12.5 mm in diameter. One ground rod is required for each pole.

REFERENCE

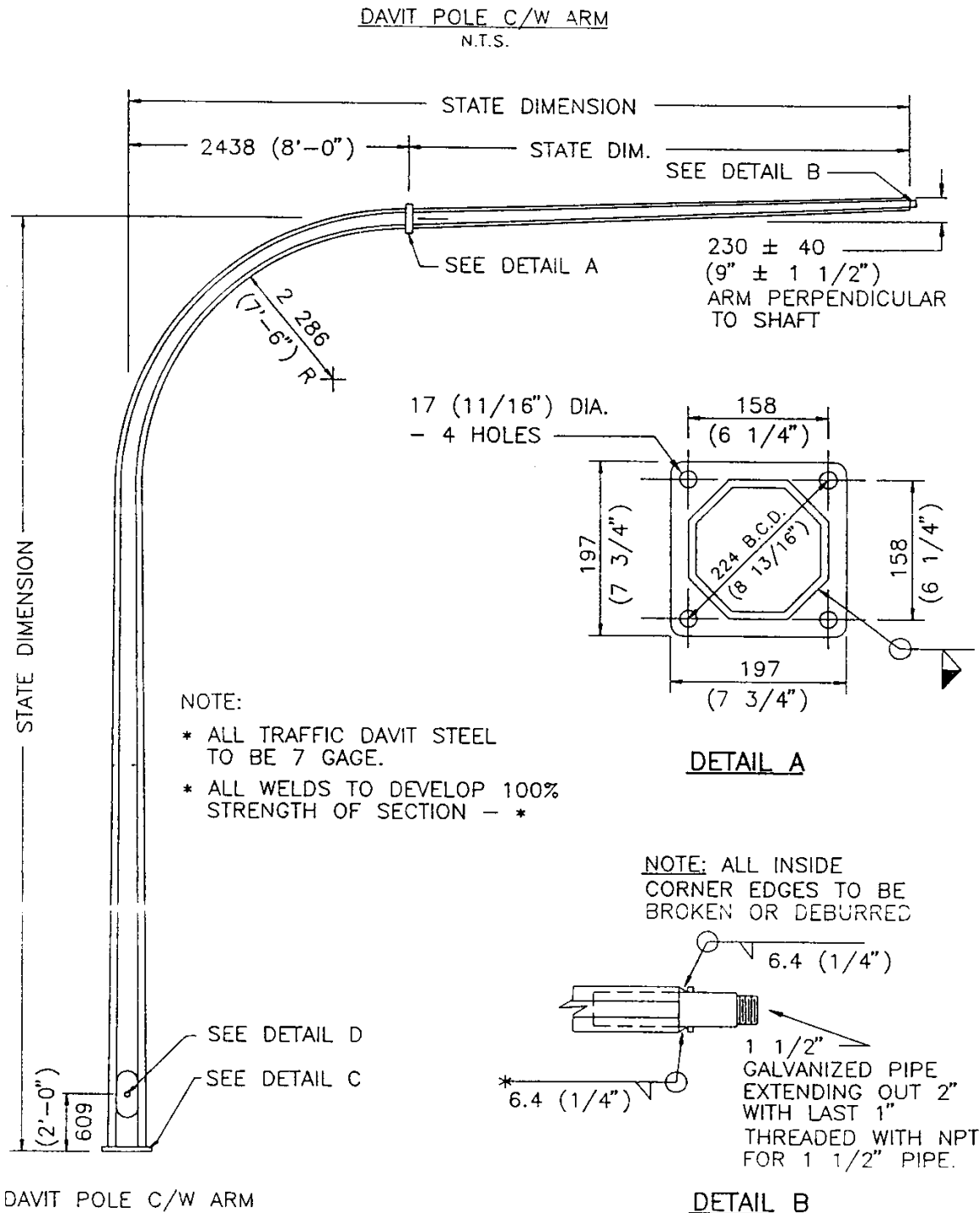
1. Design Manual, Part 2 Section 2541 Flashing Light Installation Standards
2. Manual of Traffic Signal Design, Institute of Transportation Engineers
3. Traffic Signal Installation and Maintenance Manual, Institute of Transportation Engineers

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SMM 1510-1

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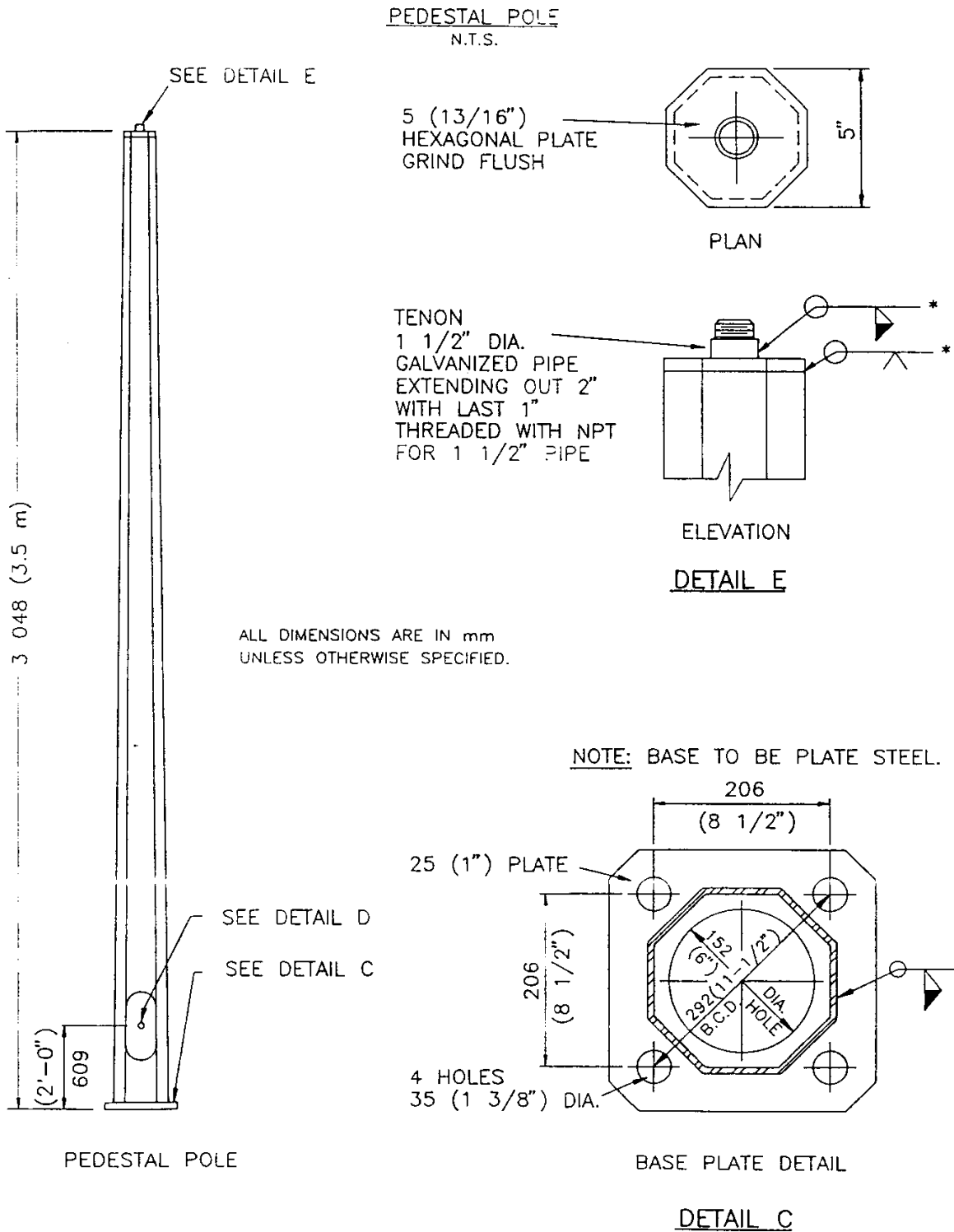
ALL DIMENSIONS ARE IN mm
UNLESS OTHERWISE SPECIFIED

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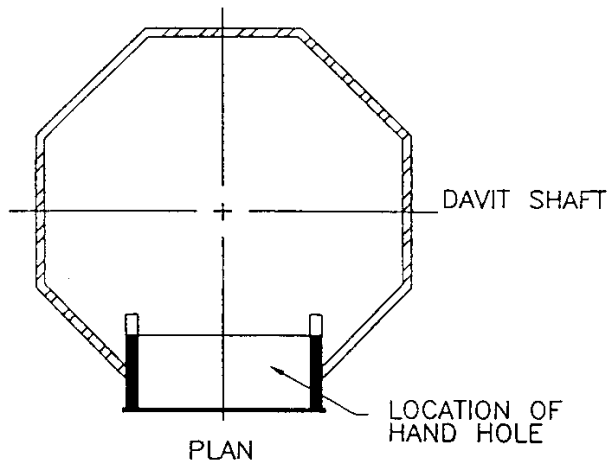
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HAND HOLE
N.T.S.



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NOTE: ALL INSIDE EDGES TO BE
BROKEN OR DEBURRED.

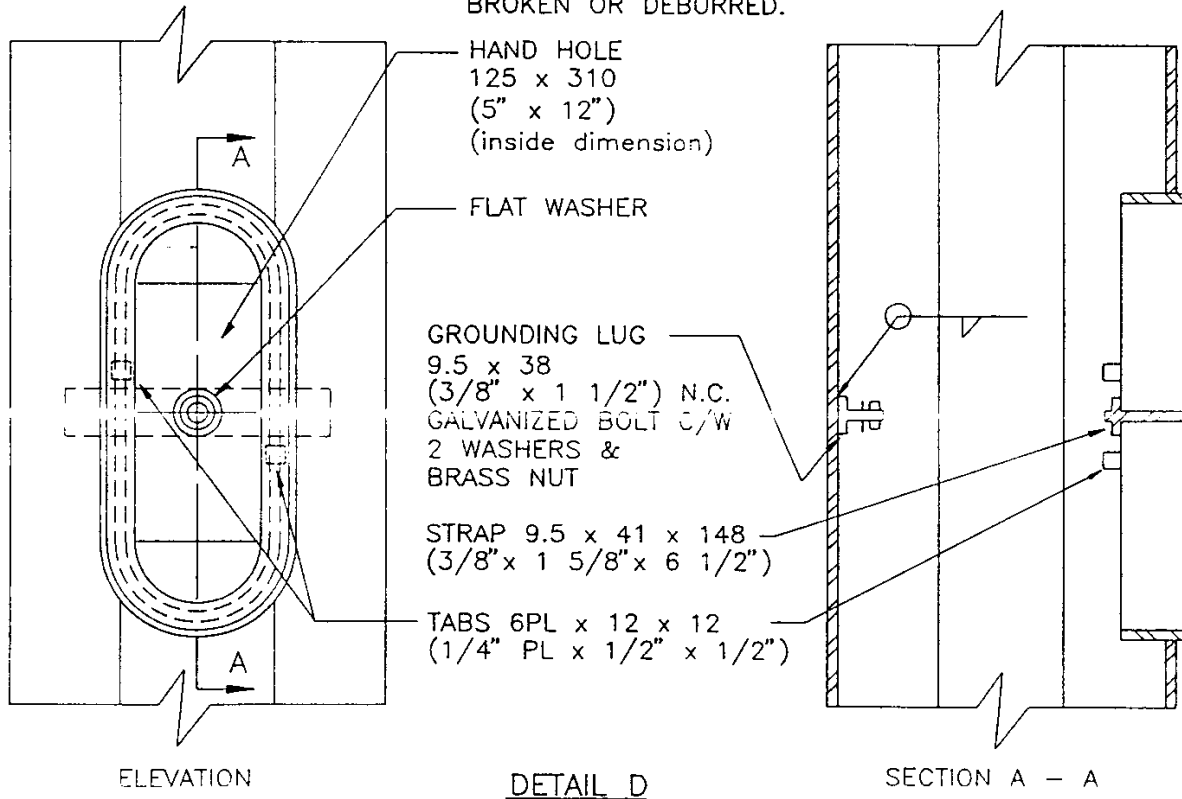


Figure 1510-1-3

Specifications For Manufactured Materials

SMM 1510-1

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APPROVAL SHEET

New X Revision ___ Date of Previous Document

Effective Date: ___ - -

Description of Revision (Reason for Revision):

Developed by Jon Wyatt, to be included into the SMM Manual.

Review/Implementation Process:

Other Manuals/Policies Affected:

Follow Up/Training Required:

Comments/Concerns/Implications (Budget/Environment/Stakeholders):

Prepared and Recommended by: Randy Schmidt 93-02-08
Materials Standards Engineer Date

Approval Recommended by: R.A. Widger - -
Senior Materials Engineer Date

Approval Recommended by: A.R. Gerbrandt - -
Dir., Technical Standards & Policies Br.

Approved by: D.G. Metz - -
Assistant Deputy Minister, Infrastructure Date

Electronic File Updated ___ - -

Update Mailed ___ - -