

CAUTION:

1. THIS PROCEDURE IS PROVIDED AS A GUIDE ONLY. ULTIMATE RESPONSIBILITY FOR SAFE ERECTION OF POLE LIES WITH THE RIGGER/CRANE OPERATOR.
2. ONLY QUALIFIED PERSONNEL WITH EXPERIENCE IN TAPERED STEEL POLES SHOULD BE USED FOR ASSEMBLY & ERECTION. DOGMANS TICKET IS REQUIRED TO SUPERVISE THIS PROCESS.
3. POLE MUST BE ASSEMBLED IN ACCORDANCE WITH GM POLES 'POLE ASSEMBLY PROCEDURE'.
4. THE PROCEDURE OUTLINED IN THIS DOCUMENT IS NOT SUITABLE FOR HIGH MAST POLES OR POLES WITH CLIMBING RUNGS OR PLATFORMS. THOSE POLES MUST HAVE POLE SPECIFIC ERECTION PROCEDURES PREPARED FOLLOWING FINAL DESIGN OF THE POLE. GM POLES RECOMMEND THAT GM POLES BE ENGAGED FOR THE ASSEMBLY AND ERECTION OF ALL HIGHMAST POLES AND POLES WITH CLIMBING SYSTEMS AND/OR PLATFORMS.

1. CHECK DOCUMENTATION:

Check that you have the correct drawing of the pole showing the required overlaps and pole diameters, section thicknesses and lengths. Refer GM Poles 'Pole Assembly Checklist', and 'Pole Assembly Instructions' documents to assist in recording details and ensuring the correct and safe assembly of poles.

2. CHECK EQUIPMENT:

Check that you have the appropriate slings, shackles, and equipment to safely carry out this procedure, and that they are in good condition and within test date.

3. PREPARE FOOTING:

Remove top nuts and washers from foundation bolts and level bottom nuts. If more than 4 bolts, level 4- nuts only to facilitate ease of final levelling. Ensure bottom nuts are raised enough to allow a spanner between baseplate and concrete when pole is in position. Note: 8- bolts must be used for levelling if the total number of foundation bolts exceeds 20. In this situation it is recommended to use 2- bolts in each of the North, South, East and West directions.

4. SET-OUT OF LIFTING EQUIPMENT:

Choose a lifting point on pole shaft;

– **Attachment Point A**, which ensures a greater weight in bottom half of pole (approx. 2/3 from base).

Wrap a short sling (ensure the sling is long enough to slide all the way down the pole – do not double wrap this sling around the pole such that the sling "chokes" the pole) around the pole at this point and pass the sling through another sling then attach the first sling onto the crane hook.

Extend the second sling using slings and shackles or if these are not available – chains down to the lifting lugs on the base of the pole – **Attachment Point B**.

Note: for streetlight poles and small floodlighting poles without a bottom lifting lug, pass a sling through the pole access door and under the baseplate as shown in **Figure 1**.

5. CRANE POSITION:

Position of crane can vary according to lifting capacity but usually Point A on pole is placed as close as possible to footing (if not on top of) with crane opposite foundation as shown.

CAUTION: A tailing crane may be necessary for poles with larger weights. We suggest poles > 3.0T be referred to GM Poles for further instructions.

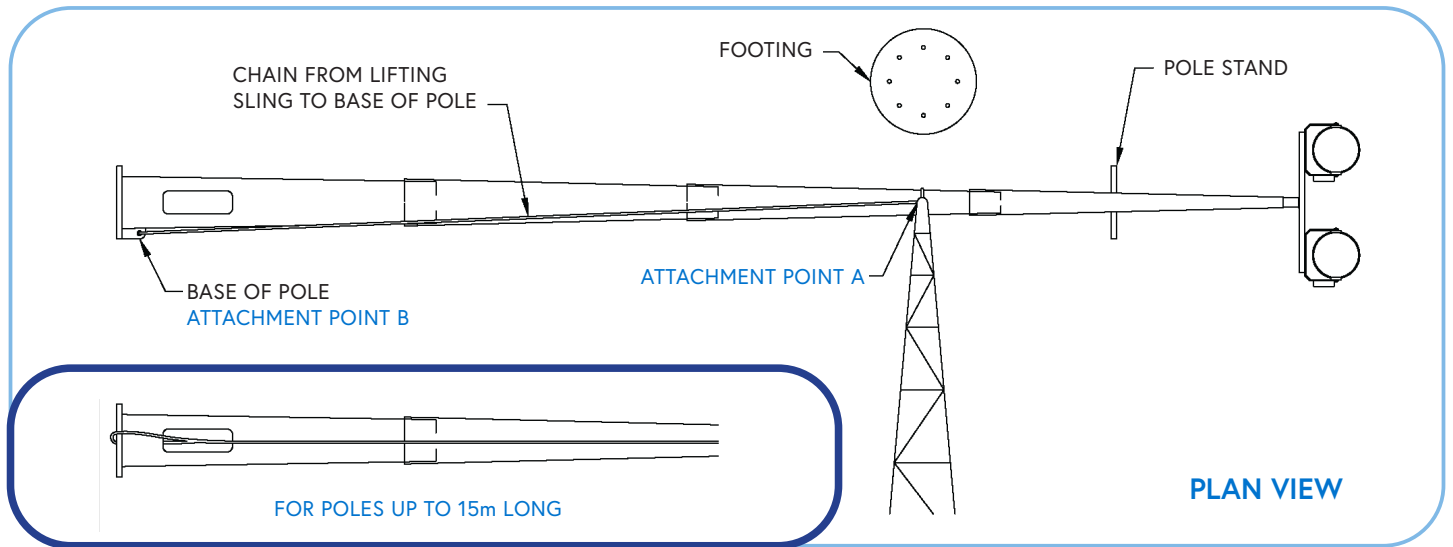


Figure 1. Set-Out of Lifting Equipment

EXTREME CARE SHALL BE TAKEN AT ALL TIMES

to ensure that as the slings lift the pole, they are allowed to slide upwards, and that the attachment to the base of the pole remains taught. This may require removal of a section of fixed ladders for the lift, to be replaced after standing using a man box. Failure to do so may result in the connection to 'Point B' becoming slack resulting in the loosening of a tapered friction joint and loss of the load. When the pole is horizontal and load is taken by the lifting crane and the connection to the base (Point B) is taught, there should be A MINIMUM of one metre above 'Point A' clear of any obstructions.

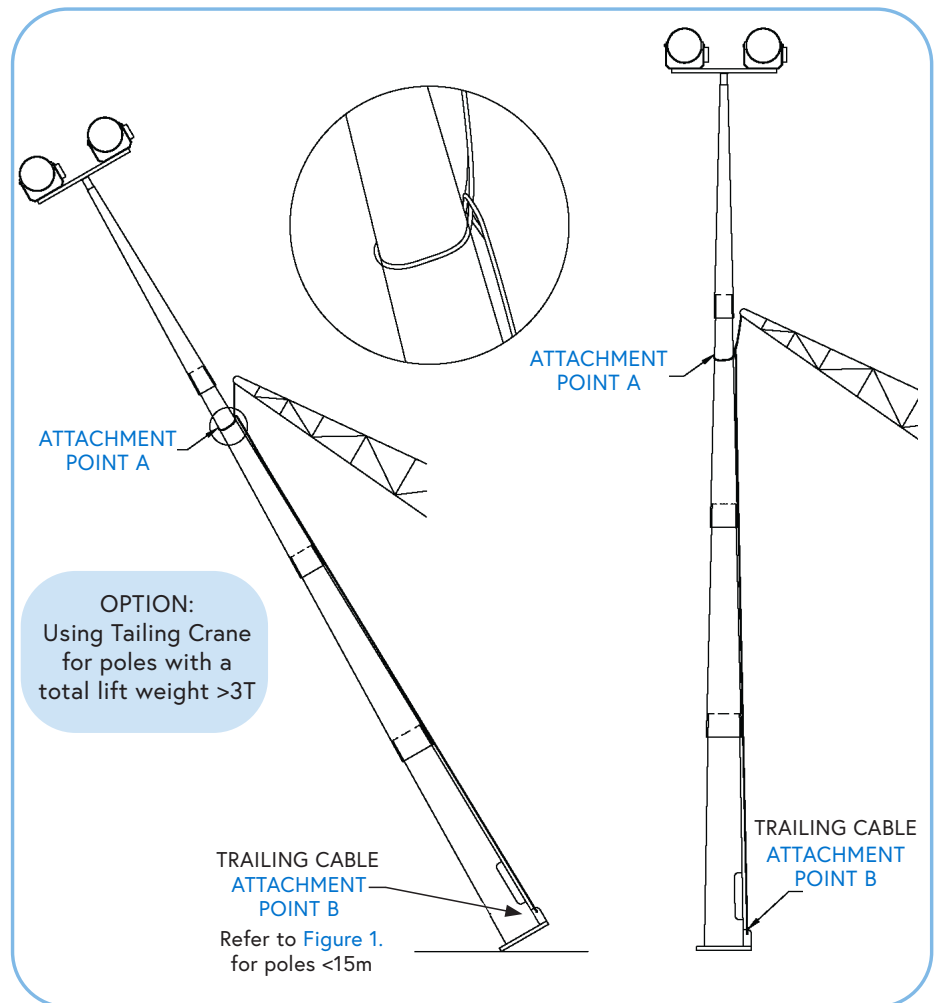


Figure 2. Pole Erection

6. ERECTION:

Lift pole into vertical position as shown in [Figure 2](#).

Note: for poles under 15m long without a bottom lifting lug, pass a sling through the pole access door and under the baseplate as shown in [Figure 1](#).

7. CONNECTION TO FOOTING AND LEVELLING:

Fit top nuts and washers in a continuous process – avoiding all distractions (e.g. answering mobile phone calls) during this important process. Hand tighten all top nuts as shown in [Figure 3](#).

Check level from two directions (90° apart) by ensuring the centre of the pole top is above the centre of the pole base*. This may be performed by using a dumpy/laser level, or by eye using a plumb bob or spirit level (pole cannot be levelled by placing a spirit level on the baseplate – must work on pole centreline). Adjust lower nuts if necessary. When pole is secured to foundation, top and bottom nuts should be fully tensioned with a spanner to a **SNUG TIGHT** position.

Take tension off sling and allow sling at Point A to slide down pole shaft enabling removal at pole base. * Poles up to 12m in height may have a slight bow (due to the structural reinforcement of the door opening) up to the limits expressed in AS1798 Figure 5.1: 3mm/m centreline bow over the pole length e.g. a 10m pole may have up to a 30mm maximum bow.

8. BASEPLATE GROUTING:

A non-shrink grout must be installed under the baseplate in accordance with *GM Poles Grouting Procedure*.

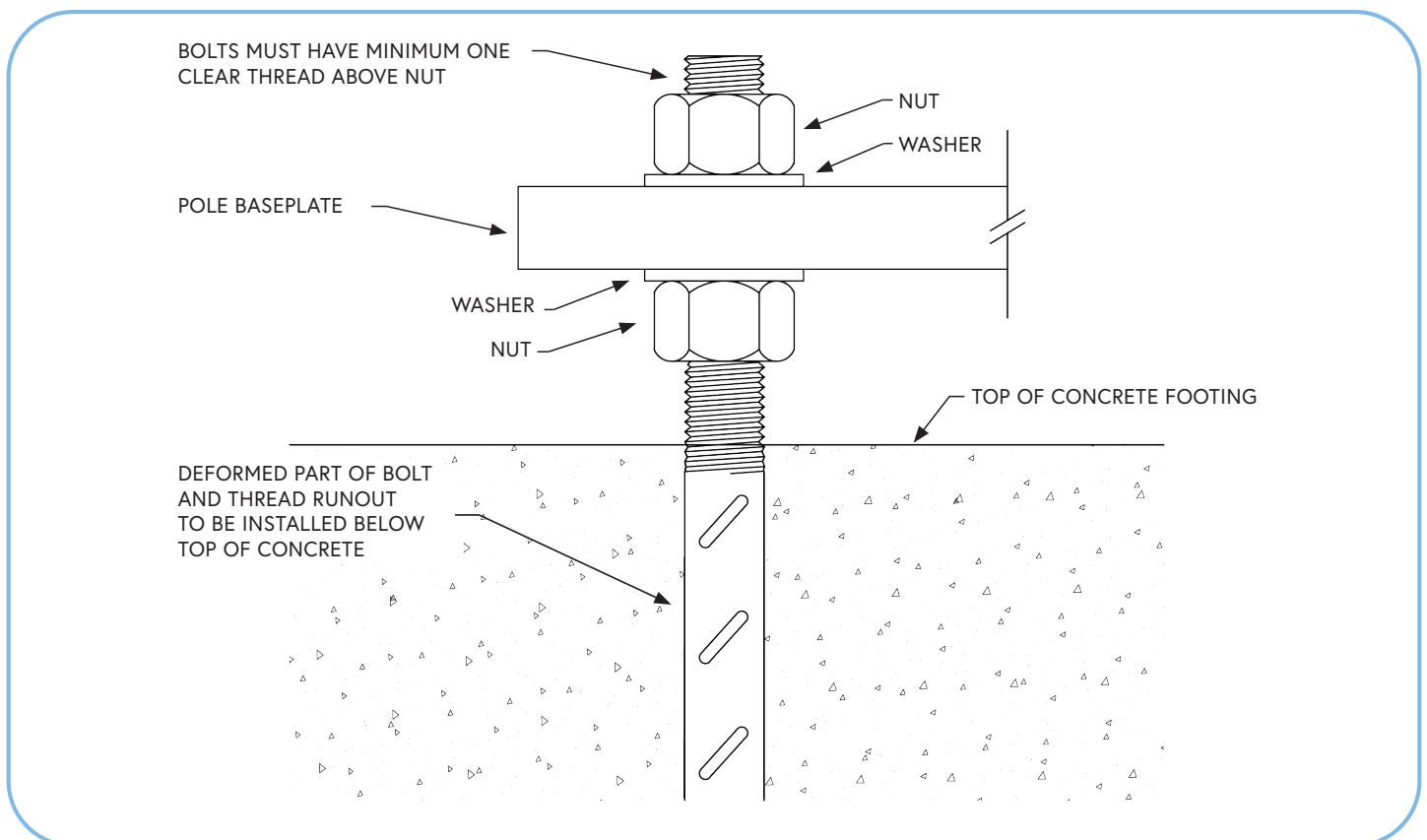


Figure 3. Installed bolt arrangement before grouting