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RESEARCH REPORT: 25813
(CSI # 04080)

Expires: August 1, 2019
Issued Date: August 1, 2017
Code: 2017 LABC

GENERAL APPROVAL – Renewal and Clerical Modification - Proto II– Direct Tension Indicator Washers and PT Rods.

DETAILS

Compressible Direct Tension Indicating Washer is used to visually verify that a 6000-pound tension force in the Post Tension Rod has been achieved. At each rod a DTI washer shall be installed between the bearing plate and the nut with the “tabs” of the DTI facing up against the bottom of the nut. The nut shall be tensioned to a point where the DTI tabs collapse and no light leakage can be seen between the nut and the DTI washer.

The Proto II Post Tension Rod™ is $\frac{7}{16}$ ” diameter steel rod conforming to ASTM A641 with $\frac{1}{2}$ ” Roll threads at the end. Post tensioning Rods have minimum yield strength of 60ksi and minimum tensile strength of 90ksi. This Rod is approved for anchoring and tensioning of the Proto II™ Masonry fence wall/retaining wall system. One end of the rod is threaded to accept a tensioning nut or coupler. The other end of the rod is designed for either anchorage into concrete or masonry. The post tension rod for anchorage in concrete has an integral bent hook with either a $\frac{1}{2}$ ” nut threaded onto the end of the hook or an integrally forged nut at the end. For anchorage in masonry, the end of the rod is straight with a $\frac{1}{2}$ ” nut and washer assembly attached to the end of the rod.

RR 25813
Page 1 of 3

Proto II Wall Systems

Re: Proto II – Direct Tension Indicator Washers and PT Rods.

The approval is subject to the following conditions:

1. For each shipment, the manufacturer shall furnish a certificate indicating that the hardware complies with the manufacturer's specifications.
2. Approved products shall be identified with the name "Proto II" trademark.
3. Installation of the Proto II – Direct Tension Indicator Washers and PT Rods shall be in accordance with the manufacturer's instructions.
4. Complete design and calculations, demonstrating that the applied loads do not exceed the allowable loads, shall be submitted to the Structural Plan Check for each job. Plans and calculations shall bear the stamp and signature of a California registered civil or structural engineer.
5. The allowable load values shall not be further increased for short duration loading, such as wind and seismic.
6. Connection shall be fully detailed and dimensioned on approved plans.
7. Deputy inspector to inspect post tension rods location in footing/wall prior to concrete/grout placement. Final tension inspection shall be performed as specified in contract documents.
8. Special inspection by Registered Deputy Inspector shall be provided in accordance with 1704.3.2 and 1704.3.3 of the 2017 Los Angeles City Building Code.

DISCUSSION

The Clerical Modification is to update the Report to the 2017 Los Angeles City Building Code.

The report is in compliance with the 2017 Los Angeles City Building Code.

The approval is based on tests.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

Proto II Wall Systems

Re: Proto II – Direct Tension Indicator Washers and PT Rods.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this Approval have been met in the project in which it is to be used.

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