

# CITY OF LOS ANGELES

CALIFORNIA



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BUILDING AND SAFETY  
201 NORTH FIGUEROA STREET  
LOS ANGELES, CA 90012

FRANK BUSH  
INTERIM GENERAL MANAGER

Stressteel, Inc.  
47375 Fremont Blvd.  
Fremont, CA 94538

Attn: Dion Gray  
(510) 226-9904

RESEARCH REPORT: RR 26005  
(CSI #02260)

Expires: July 1, 2018  
Issued Date: July 1, 2016  
Code: 2014 LABC

**GENERAL APPROVAL** – Renewal - Stressteel multi-strand anchorage systems - SAS 4.6, SAS 7.6, SAS 9.6 and SAS 12.6 anchor heads with recessed bottoms for temporary tieback earth anchors.

## DETAILS

### **SAS 4.6, 7.6, 9.6 and 12.6 anchor heads with recessed bottoms:**

The anchorages consist of a circular (barrel type) anchor heads (wedge plates) of various thickness and truncated cone-shaped wedges. The number of wedges in each anchor corresponds to the number of prestressing strands. The 4.6, 7.6, 9.6 and 12.6 SAS anchor heads are forged from ductile, heat treated steel conforming to ASTM A29, Grade 1050.

The 2-part wedges are placed over the strand inside the anchor head (wedge plate) holes and are used to lock the post-tensioning strand onto the anchorage system. All wedges conform to case-hardened AISI-12L14 Steel or AISI-11L17 Steel.

The anchorages are used in conjunction with 0.6-inch diameter (7-wire) pre-stressing strands, which conform to ASTM-A416, grade 270 steel with a guaranteed ultimate tensile strength (GUTS) of 58.6 kips.

See attached drawings for details of the hardware.

### **The approval is subject to the following conditions:**

1. For each shipment, the manufacturer shall furnish a certificate indicating that the hardware complies to the manufacturer's specifications on file with the Department. Test data to verify the physical and chemical properties of the hardware shall be submitted upon request.

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Stressteel Multi-Strand Anchorage Systems.

RE: SAS 4.6, 7.6, 9.6 and 12.6 Anchor Heads with Recessed Bottoms

2. The anchor system components shall be identified by manufacturer part designations and heat number stamped onto each piece.
3. Mill test data or test data prepared by a Los Angeles City approved testing agency to verify the material and physical properties of the anchor hardware shall be kept on file with the manufacturer for each shipment of anchors and shall be submitted to Department upon request.
4. Where the anchors are used with less than the full number of prestressing strands, the strands shall be symmetrically placed within the anchors when possible. The location of the strands within the anchor head shall be clearly detailed on the approved plans for each job.
5. Design of the pre-stressed systems shall be in accordance with the 2014 Los Angeles City Building Code.
6. Installation of the anchorage and reinforcing system shall be in accordance with the manufacturer's instructions except where specified herein.
7. Design and installation of the hardware for temporary tieback earth anchors shall comply with the manufacturer's instructions and the attached "REQUIREMENTS FOR TEMPORARY TIEBACK EARTH ANCHORS".
10. Bearing stresses on the bearing plates and the piles shall be checked for each installation. Calculations and plans signed by a licensed engineer or architect registered in the State of California shall be submitted to Structural Plan Check Division for approval of the design of the anchorage system.

## **DISCUSSION**

The report is in compliance with the 2014 Los Angeles City Building Code.

The approval is based Los Angeles Acceptance Criteria for Temporary Tie-back Anchors of Multi-Strand Pre-Stressing steel and Wedge Plate and other load 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.

Stressteel Multi-Strand Anchorage Systems.

RE: SAS 4.6, 7.6, 9.6 and 12.6 Anchor Heads with Recessed Bottoms

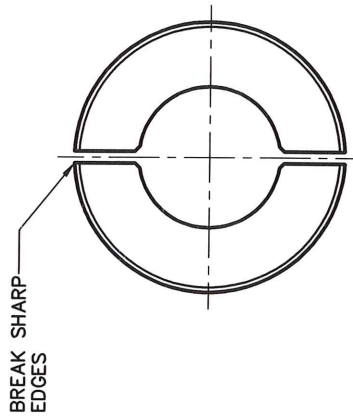
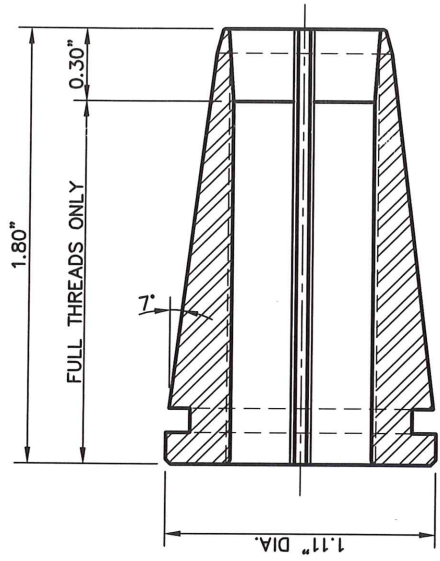
This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this approval have been met in the project in which it is to be used.



QUAN NGHIEM, Chief  
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Attachments:           “Requirements for Temporary Tieback Earth Anchors” (4 Pages)  
                              “Anchor System Parts Details” (5 Pages)



**SAS 0.6" WEDGE, 2-PART**

MATERIAL:  
 AISI 11L17 OR AISI 12L14

LARR #26005

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 FREMONT, CA 94538  
 (888) 284-8752

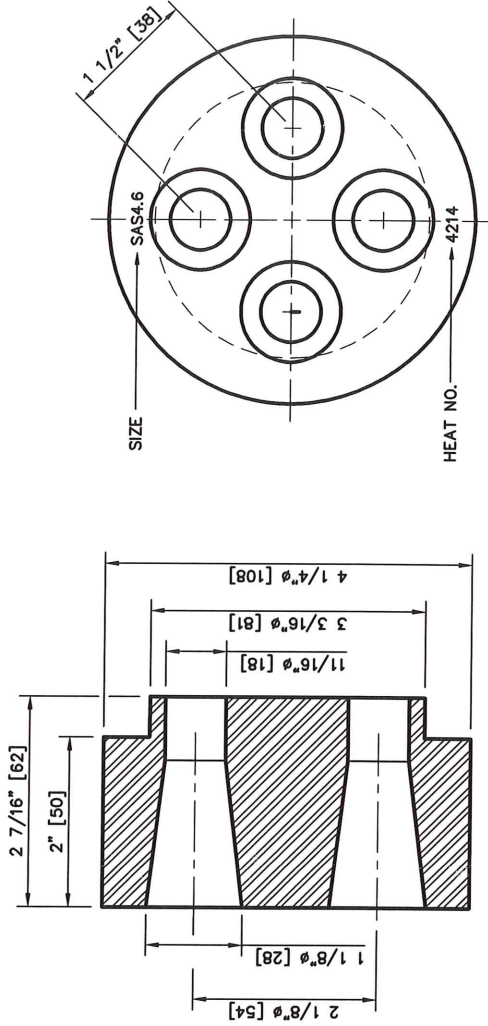
**SAS 0.6" WEDGE, 2-PART**

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DRAWING NO.:  
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**SAS 4.6 ANCHOR HEAD WITH RECESSED BOTTOM**

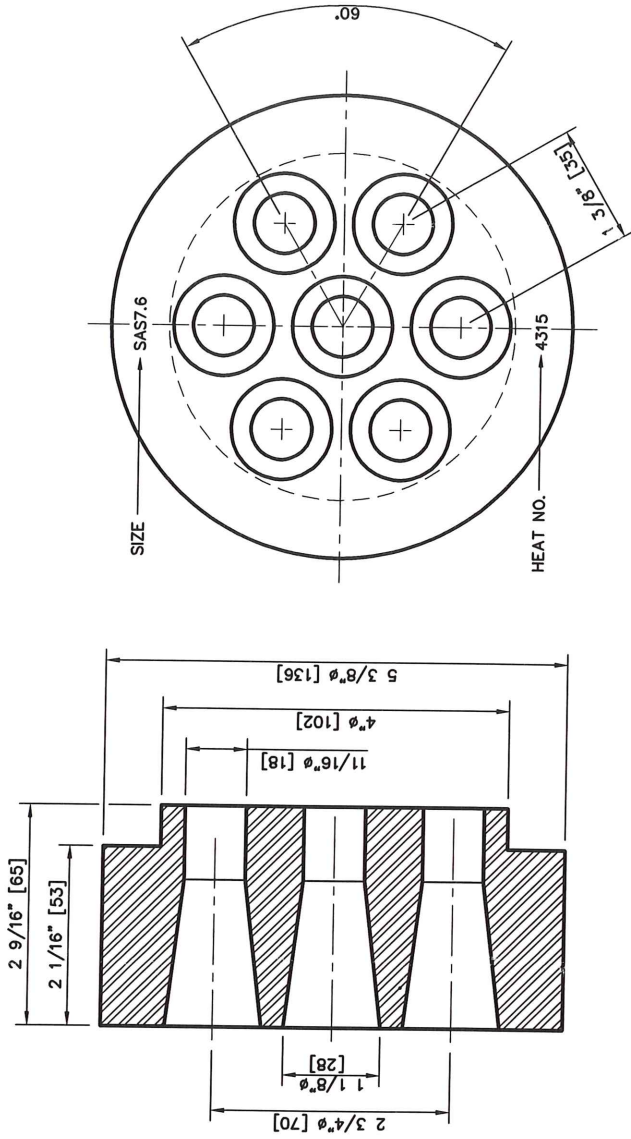
**MATERIAL:**  
ASTM A29 GRADE 1050, HEAT TREATED

**NOTE:**  
CHAMFER ALL SHARP EDGES 0.04" [1mm]

LARR #26005

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		DATE	BY	REVISION	CHECKED	BY	DATE	4/20/15	
<b>SAS 4.6 ANCHOR HEAD WITH RECESSED BOTTOM</b>									
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DRAWING NO.: <b>D107</b> REV. 0									





**SAS 7.6 ANCHOR HEAD WITH RECESSED BOTTOM**

**MATERIAL:**  
ASTM A29 GRADE 1050, HEAT TREATED

**NOTE:**  
CHAMFER ALL SHARP EDGES 0.04" [1mm]

**LARR #26005**

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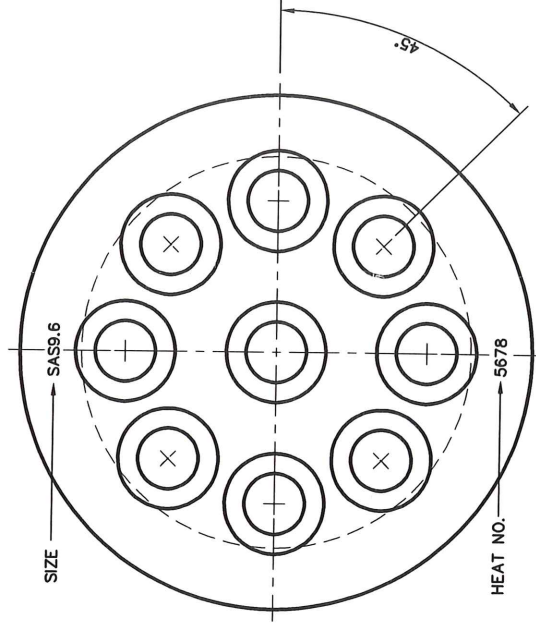
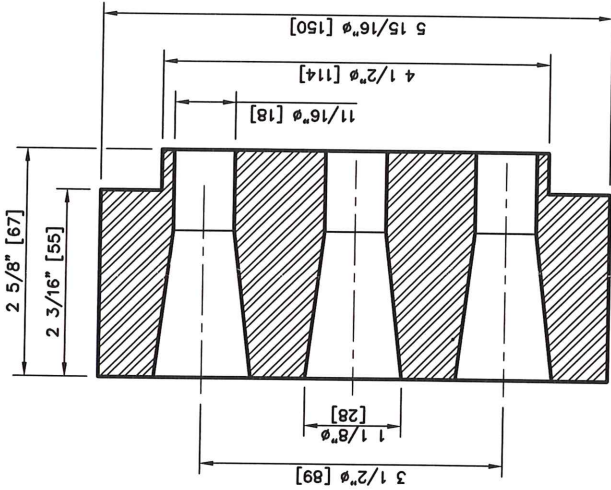
**SAS 7.6 ANCHOR HEAD WITH  
RECESSED BOTTOM**

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Fremont, CA 94538  
(888) 284-8732

**D108**  
REV. 0



**SAS 9.6 ANCHOR HEAD WITH RECESSED BOTTOM**

**MATERIAL:**  
ASTM A29 GRADE 1050, HEAT TREATED

**NOTE:**  
CHAMFER ALL SHARP EDGES 0.04" [1mm]

**LARR #26005**

**SAS 9.6 ANCHOR HEAD WITH RECESSED BOTTOM**

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DRAWING NO.: **D109**  
REV. 0

