



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR OSHPD PREAPPROVAL  
OF MANUFACTURER'S CERTIFICATION (OPM)**

OFFICE USE ONLY

APPLICATION #: OPM-0058-13

**OSHPD Preapproval of Manufacturer's Certification (OPM)**

Type:  New  Renewal  Update to Pre-CBC 2013 OPA Number: \_\_\_\_\_

**Manufacturer Information**

Manufacturer: Maquet Medical Systems, USA

Manufacturer's Technical Representative: Rick McDaniel

Mailing Address: 45 Barbour Pond Drive, Wayne, NJ 07470

Telephone: (973) 709-7934 Email: rick.mcdaniel@maquet.com

**Product Information**

Product Name: Magnus Surgical Table

Product Type: Surgical Table

Product Model Number: 1180.01B1 / 1180.01B2 / 1180.01B3

General Description: Anchorage of the Magnus Operating Table System, stationary version, with floor mounting plate, electronically controlled column drive, and stainless steel construction.

**Applicant Information**

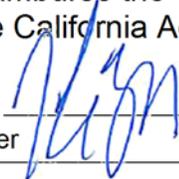
Applicant Company Name: Dynamic Certification Laboratories (DCL)

Contact Person: Joseph L La Brie

Mailing Address: 11467 SE Cascade View Ct. Portland, OR 97086

Telephone: (626) 445-0366 Email: labrie@makeitright.net

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant:  Date: October 2, 2013

Title: Managing Partner Company Name: Dynamic Certification Laboratories (DCL)

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION**

**Registered Design Professional Preparing Engineering Recommendations**

Company Name: Dynamic Certification Laboratories

Name: Joseph La Brie California License Number: SE 3566

Mailing Address: 11467 SE Cascade View Ct. Portland, OR 97086

Telephone: 626-445-0366 Email: labrie@makeitright.net

**OSHPD Special Seismic Certification Preapproval (OSP)**

- Special Seismic Certification is preapproved under OSP- (Separate application for OSP is required)
- Special Seismic Certification is no preapproved

**Certification Method(s)**

- Testing in accordance with:  ICC-ES AC156  FM 1950-10
- Other\* (Please Specify): \_\_\_\_\_

\*Use of criteria other than those adopted by the California Building Standards Code, 2013 (CBSC 2013) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2013 may be used when approved by OSHPD prior to testing.

- Analysis
- Experience Data
- Combination of Testing, Analysis, and/or Experience Data (Please Specify): AC-156 testing for Special Seismic Certification and analysis for anchorage.

**List of Attachments Supporting the Manufacturer's Certification**

- Test Report  Drawings  Calculations  Manufacturer's Catalog
- Other(s) (Please Specify): \_\_\_\_\_

**OFFICE USE ONLY – OSHPD APPROVAL VALID FOR CBC 2013 ONLY**

Signature: *William Staehlin* Date: 8/19/2014

Print Name: William Staehlin

Title: SSE

Condition of Approval (if applicable): \_\_\_\_\_

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"



# MAQUET

## MAGNUS TABLE

MODEL Nos:

Table Columns : 1180.01B1, 1180.01B2, 1180.01B3

Table Top : 118010F0, 118016F0, 118016F1, 118016F2,  
118016F3, 118016F4, 118016F5

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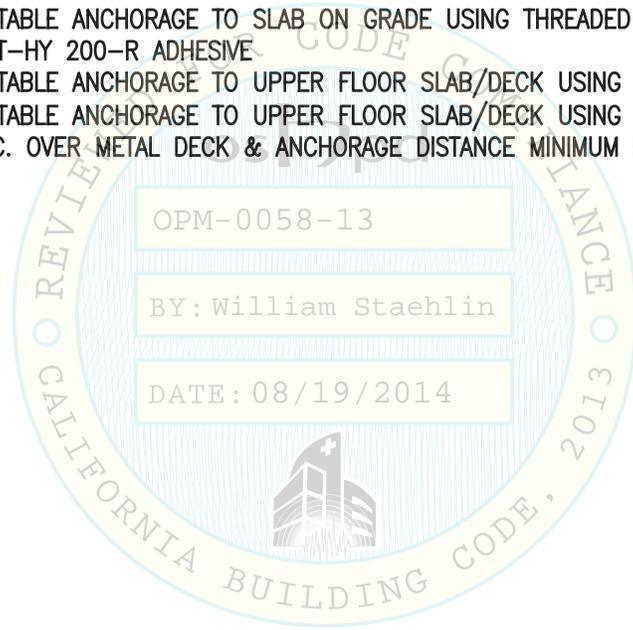
TC-1 TABLE OF CONTENTS  
 GN-1 GENERAL NOTES  
 GN-2 GENERAL NOTES

MAQUET – MAGNUS TABLE

(TABLE COLUMN MODEL NOS. 1180.01B1, 1180.01B2, & 1180.01B3)

(TABLE TOPS MODEL NOS. 118010FO, 118016FO, 118016F1, 118016F2, 118016F3, 118016F4, 118016F5)

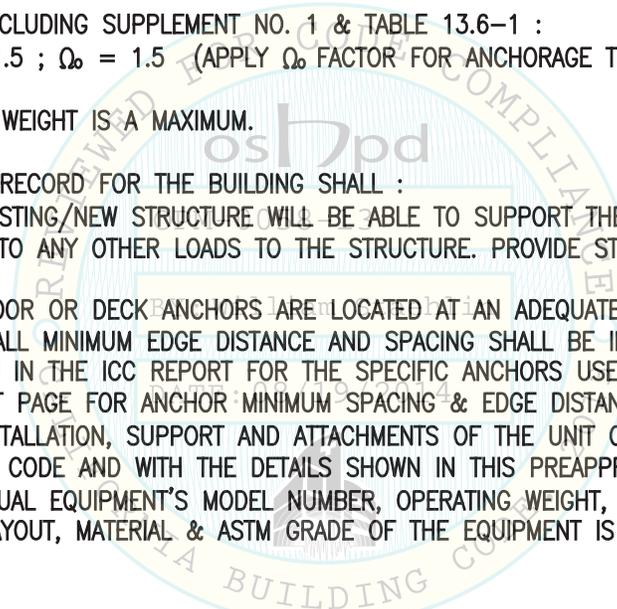
TB-1.1a MAGNUS TABLE ANCHORAGE TO SLAB ON GRADE USING THREADED ROD W/  
 HILTI HIT-HY 200-R ADHESIVE  
 TB-1.1b MAGNUS TABLE ANCHORAGE TO SLAB ON GRADE USING THREADED ROD W/  
 HILTI HIT-HY 200-R ADHESIVE  
 TB-1.2a MAGNUS TABLE ANCHORAGE TO UPPER FLOOR SLAB/DECK USING BOLT & THREADED ROD  
 TB-1.2b MAGNUS TABLE ANCHORAGE TO UPPER FLOOR SLAB/DECK USING BOLT & THREADED ROD  
 TB-1.3 MIN CONC. OVER METAL DECK & ANCHORAGE DISTANCE MINIMUM REQUIREMENTS



MAQUET - MAGNUS TABLE		 <b>DCL</b> Dynamic Certification Laboratories	
Table Columns : 1180.01B1, 1180.01B2, 1180.01B3 Table Tops : 118010FO, 118016FO, 118016F1, 118016F2, 118016F3, 118016F4, 118016F5	JOSEPH L. LA BRIE Structural Engineer No. SE 3566		MAQUET GETINGE GROUP 45 BARBOUR POND DRIVE WAYNE, NJ 07470
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GENERAL NOTES

- 1.) THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2013 CALIFORNIA BUILDING CODE (CBC). THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2013 CALIFORNIA BUILDING CODE (CBC).
- 2.) SITE VERIFICATION IS REQUIRED. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE AREA(S) OF WORK PRIOR TO THE BEGINNING OF THE PROJECT. DO NOT SCALE THE DRAWINGS; ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED, IMMEDIATELY, IF ANY DISCREPANCIES ARE FOUND.
- 3.) DESIGN CRITERIA:
  - a.)  $Sds = 2.0$  (SLAB ON GRADE) OR  $1.8$  (UPPER FLOOR) ;  $I = 1.5$  ;  
 $z/h \leq 1$  (UPPER FLOOR) &  $z/h = 0$  (GROUND OR SLAB ON GRADE)
  - b.) PER ASCE 7-10 INCLUDING SUPPLEMENT NO. 1 & TABLE 13.6-1 :  
 $A_p = 1$  ;  $R_p = 1.5$  ;  $\Omega_o = 1.5$  (APPLY  $\Omega_o$  FACTOR FOR ANCHORAGE TO CONCRETE)
- 4.) CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM.
- 5.) STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL :
  - a.) CHECK THAT THE EXISTING/NEW STRUCTURE WILL BE ABLE TO SUPPORT THE MAXIMUM WEIGHTS/FORCES SHOWN IN ADDITION TO ANY OTHER LOADS TO THE STRUCTURE. PROVIDE STRENGTHENING OF STRUCTURE AS REQUIRED.
  - b.) CHECK THAT THE FLOOR OR DECK ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. ALL MINIMUM EDGE DISTANCE AND SPACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THE ICC REPORT FOR THE SPECIFIC ANCHORS USED ON THIS OPM. (SEE TABLE ON NEXT PAGE FOR ANCHOR MINIMUM SPACING & EDGE DISTANCE REQUIREMENTS)
  - c.) CHECK THAT THE INSTALLATION, SUPPORT AND ATTACHMENTS OF THE UNIT COMPLIES WITH THE 2013 CALIFORNIA BUILDING CODE AND WITH THE DETAILS SHOWN IN THIS PREAPPROVAL.
  - d.) VERIFY THAT THE ACTUAL EQUIPMENT'S MODEL NUMBER, OPERATING WEIGHT, CENTER OF GRAVITY (C.G.) LOCATION, ANCHOR LAYOUT, MATERIAL & ASTM GRADE OF THE EQUIPMENT IS THE SAME SHOWN ON THIS OPM PREAPPROVAL.
- 6.) ADHESIVE ANCHORS SHALL BE HILTI HAS B7 THREADED ROD W/ HILTI HIT-HY 200-R ADHESIVE ANCHORING SYSTEM (PER ICC-ESR-3187 DATED MARCH 2013) AND INSTALLED IN NORMAL WEIGHT CONCRETE. CARBON STEEL FOR INDOOR APPLICATIONS. MINIMUM EMBEDMENT OF ALL BOLTS AND TEST LOADS (UNLESS NOTED OTHERWISE ON DETAIL) SHALL BE SHOWN ON THE NEXT PAGE:



MAQUET - MAGNUS TABLE		 <b>DCL</b> Dynamic Certification Laboratories	
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TEST LOAD B7 THREADED ROD W/ HILTI HIT HY-200-R  
(f'c = 3000 PSI MIN.) - INSTALLED TO N.W. CONCRETE SLAB

THREADED ROD SIZE	MINIMUM EFFECTIVE EMBEDMENT (INS.)	MINIMUM ANCHOR SPACING (INS.)	MINIMUM EDGE DISTANCE (INS.)	DIRECT TENSION (LBS.)	INSTALLATION TORQUE (LBS.-IN)
M10	7"	7"	12"	2,955	180



- a.) WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.
- b.) ALL POST INSTALLED ANCHORS (LOADED IN EITHER PULL OUT OR SHEAR) SHALL BE PROOF TESTED IN TENSION TO TWICE THE ALLOWABLE TENSION LOAD OR 1 ¼ TIMES THE MAXIMUM DESIGN STRENGTH. WHEN POST-INSTALLED ANCHORS ARE USED FOR NON STRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE, 50% OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP SHALL BE TESTED. IF THERE ARE ANY FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED.
- c.) THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:

HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE. FOR ADHESIVE ANCHORS, WHERE OTHER THAN BOND IS BEING TESTED, THE DEVICE SHALL NOT RESTRICT THE CONCRETE SHEAR CONE TYPE FAILURE MECHANISM FROM OCCURING

TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS:  
WEDGE OR SLEEVE TYPE: ONE-HALF (1/2) TURN OF THE NUT ONE-QUARTER (1/4) TURN OF THE NUT FOR 3/8" SLEEVE ANCHOR ONLY.

- d.) TESTING SHALL OCCUR A MINIMUM OF 24 HOURS AFTER INSTALLATION OF THE SUBJECT ANCHORS.
- e.) IF THE MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE IS LESS THAN THE TEST TORQUE NOTED IN THE TABLE, THE MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE SHALL BE USED IN LIEU OF THE TABULATED VALUES.
- f.) OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR ALL ANCHOR TESTING.
- g.) ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR OF RECORD AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY.

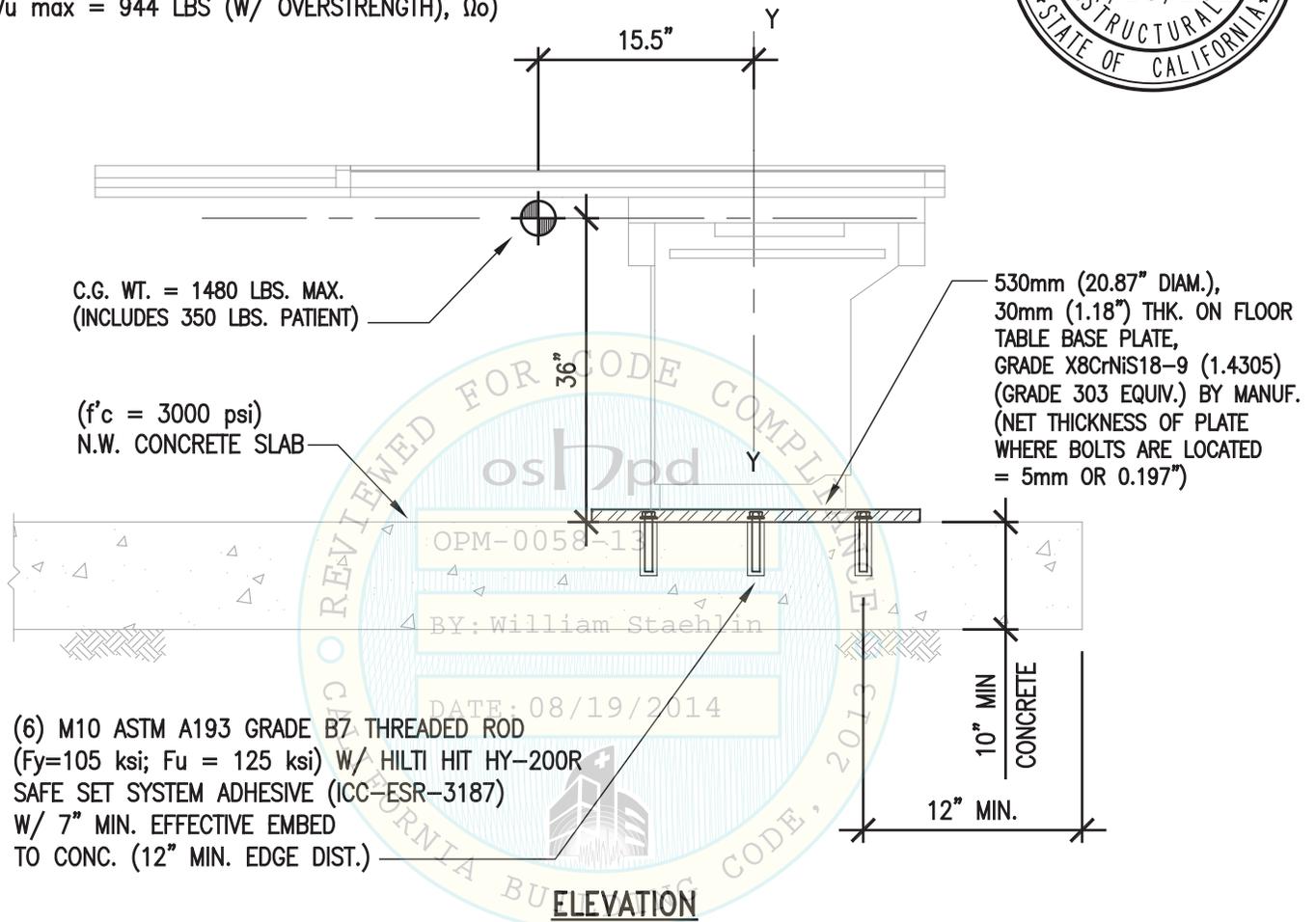
<p>MAQUET - MAGNUS TABLE</p>	<p><b>JOSEPH L. LA BRIE</b> Structural Engineer No. SE 3566</p>		
<p>Table Columns : 1180.01B1, 1180.01B2, 1180.01B3 Table Tops : 118010FO, 118016F0, 118016F1, 118016F2, 118016F3, 118016F4, 118016F5</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DATE 07/28/14</td> <td style="width: 50%;">PAGE GN-2</td> </tr> </table>	DATE 07/28/14	PAGE GN-2
DATE 07/28/14	PAGE GN-2		
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MAX. BOLT FORCES (DEMAND FORCES BASED ON  $S_{ds}=2.0$ ) ;  $z/h = 0.0$

$T_u \text{ max} = 4,748 \text{ LBS (W/ OVERSTRENGTH, } \Omega_o)$

$V_u \text{ max} = 944 \text{ LBS (W/ OVERSTRENGTH, } \Omega_o)$



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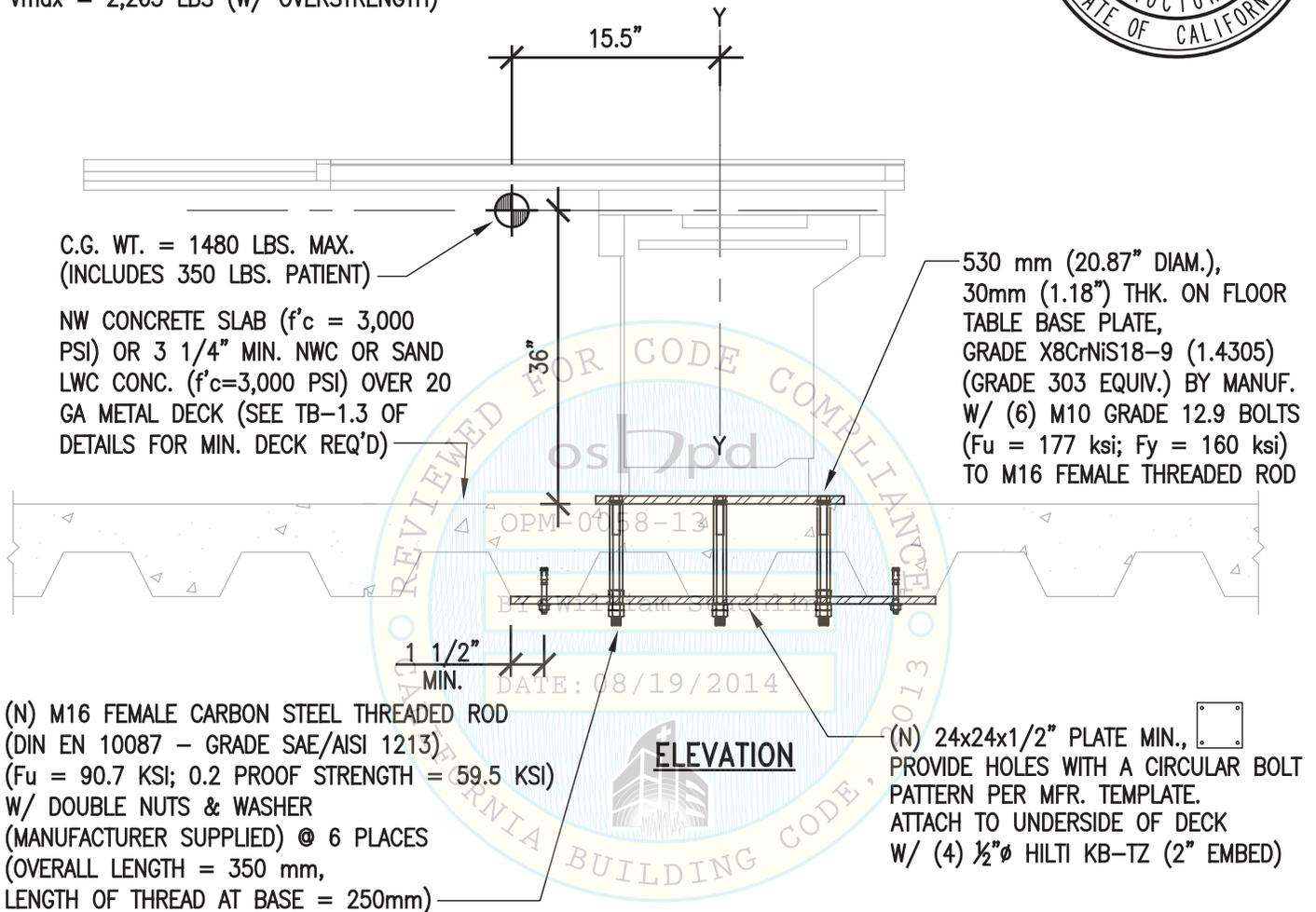




MAX. BOLT FORCES (DEMAND FORCES BASED ON  $Sds = 1.8$ ),  $z/h \leq 1.0$

$T_{max} = 6,954$  LBS (W/O OVERSTRENGTH)

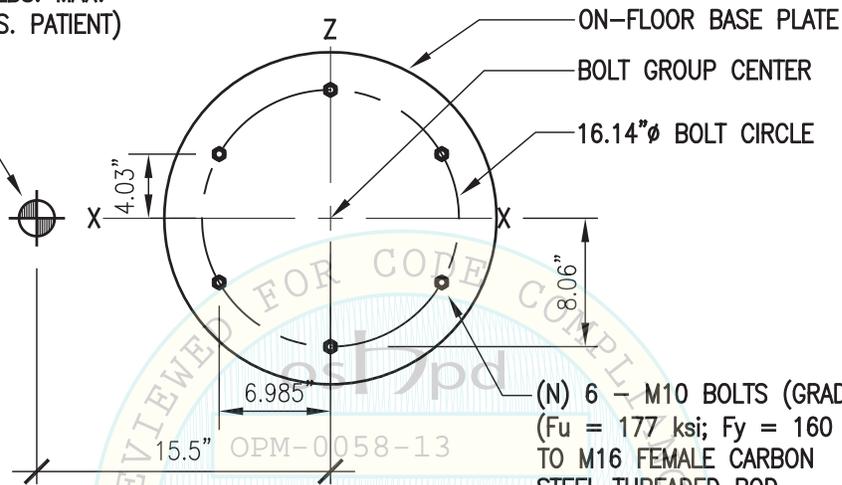
$V_{max} = 2,265$  LBS (W/ OVERSTRENGTH)



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C.G. WT. = 1480 LBS. MAX.  
 (INCLUDES 350 LBS. PATIENT)  
 (Y = 36")  
 [1180.16X0]



(N) 6 - M10 BOLTS (GRADE 12.9)  
 (Fu = 177 ksi; Fy = 160 ksi)  
 TO M16 FEMALE CARBON  
 STEEL THREADED ROD  
 (Fu = 90.7 KSI; 0.2 PROOF STRENGTH=59.5 KSI)  
 (MANUFACTURER SUPPLIED) SEE ELEVATION

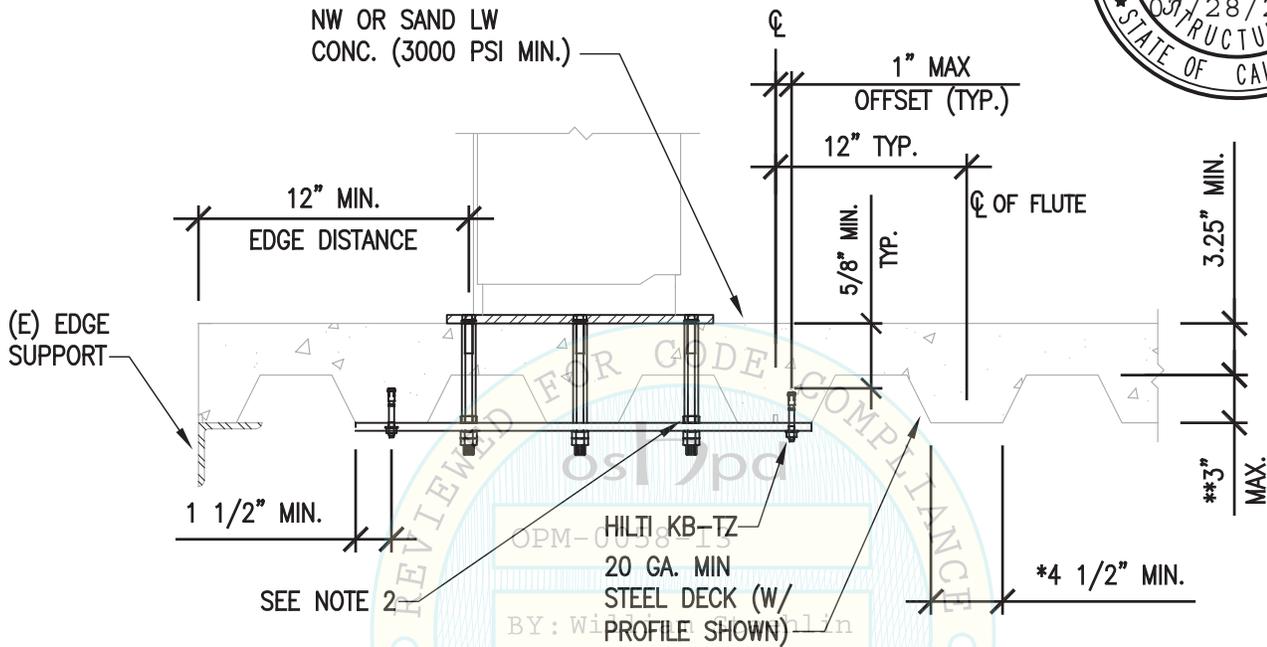
BY: William Staehlin  
**PLAN AT BASE**

DATE: 08/19/2014

**NOTE:**

1. FOR EDGE DISTANCE AND SPACING OF ANCHORS AND STEEL DECK REQUIREMENT SEE TB-1.3

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**HILTI KB-TZ (UNDERSIDE OF DECK ANCHORAGE)**

**NOTES:**

1. (PER ICC-ES ESR-1917)
  - \* MIN. 1 3/4" FOR B DECK
  - \*\* MAX. 1 1/2" FOR B DECK
2. HEX NUT TOP & BOTTOM OF PLATE (TYP.); WHERE NUT CANNOT BE PROVIDED AT TOP SIDE OF PLATE, PROVIDE TAPPED HOLE THROUGH PLATE OR DOUBLE NUTS BELOW PLATE W/ TOP NUT WELDED TO UNDERSIDE OF PLATE.

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