



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0370-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: [X] New [ ] Renewal [ ] Update to Pre-CBC 2013 OPA Number:

Manufacturer Information

Manufacturer: Mobile Aspects, Inc.

Manufacturer's Technical Representative: Khang Le

Mailing Address: 3700 S. Water Street, Suite 310, Pittsburgh, PA 15203

Telephone: (412) 325-1690 x 103 Email: khang.le@mobileaspects.com

Product Information

Product Name: Mobile Aspects RFID Cabinets

Product Type: Storage Cabinet OPM-0370-13

Product Model Number: iRISupply, iRIScope

General Description: Radio Frequency Identification (RFID) enabled cabinets used to store and track hospital supplies such as stents and catheters (iRISupply) and endoscopes (iRIScope).

Applicant Information

Applicant Company Name: ISAT Seismic Bracing

Contact Person: William V Joerger

Mailing Address: 1020 Crews Road, Suite Q, Matthews NC 28105

Telephone: 510-714-0216 Email: wvjoerger@isatsb.com

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: [Signature] Date: 07/27/2016

Title: Principal Structural Engineer Company Name: ISAT Seismic Bracing

"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: ISAT Seismic Bracing

Name: William V Joerger California License Number: S4545

Mailing Address: 1020 Crews Rd, Matthews NC 28105

Telephone: 510-714-0216 Email: wvjoerger@isatsb.com

## OSHPD Special Seismic Certification Preapproval (OSP)

- Special Seismic Certification is preapproved under OSP-  
(Separate application for OSP is required)
- Special Seismic Certification is not preapproved

## Certification Method(s)

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

Equipment is considered to be rugged. OPM is for anchorage to concrete slabs.

\*Use of criteria other than those adopted by the California Building Standards Code, 2013 (CBC 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 CBC 2013 may be used when approved by OSHPD prior to testing.

- Analysis
- Experience Data
- Combination of Testing, Analysis, and/or Experience Data (Please Specify): \_\_\_\_\_

## 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: 09-19-2016

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"





**INTERNATIONAL SEISMIC  
APPLICATION TECHNOLOGY**

A Division of Tomarco Contractor Specialties

Submittal Documents

**OSHPD OPM-0370-13**

BY: William Staehlin

**iRISCOPE AND iRISUPPLY CABINET  
SUPPORTS AND ATTACHMENTS**

**CONSTRUCTION DRAWINGS**

**MOBILE ASPECTS, INC.**

ISAT  
1020 Crews Road Suite Q  
Matthews, N.C. 28105  
704-841-4080



*WV* 25 Aug 16

FILE NO.: CLT-0316-037

***“Empowered by Experience”***

REV 1

OSHPD OPM-0370-13 CONST DWG - i



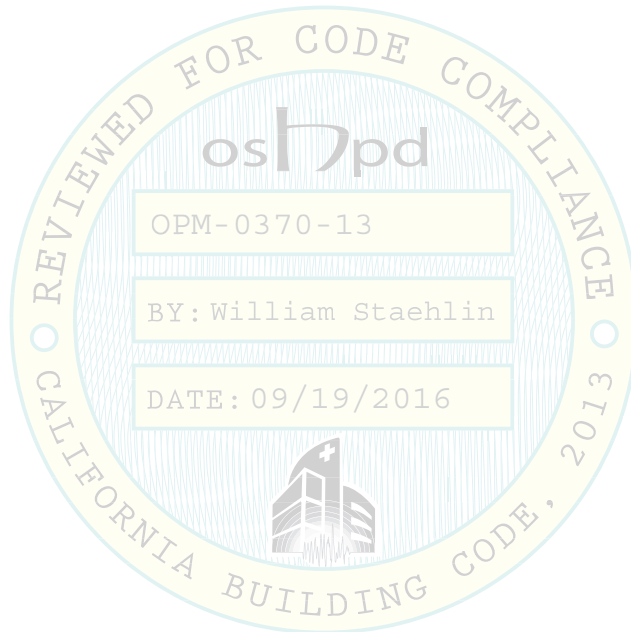
# OSHPD OPM-0370-13

## iRISCOPE AND iRISUPPLY

### CONSTRUCTION DRAWING INDEX

#### INDEX

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**OSHPD OPM-0370-13**

MANUFACTURE: MOBILE ASPECTS  
EQUIPMENT TYPE: INSTRUMENT CABINET


**GENERAL NOTES:**

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. SEISMIC CRITERIA USED:  $S_{DS} = 2.5$   $I_p = 1.5$   $a_p = 1.0$   $R_p = 1.5$  (OTHER EQUIPMENT). FOR  $z/h = 0$   $F_pH = 1.13$  AND FOR  $z/h \leq 1.0$   $F_pH = 3.00$  AND  $F_pV = 0.50$ .
3. SUPPORT AND ATTACHMENT FORCES ARE DETERMINED USING ASCE 7-10 CHAPTER 13 "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". AN OVERSTRENGTH FACTOR  $\Omega_0 = 1.5$  IS USED FOR CONCRETE MATERIALS PER ASCE 7-10 SUPPLEMENT 1 TABLE 13.6-1. LOADS SHOWN ARE STRENGTH DESIGN LOADS PER CBC 2013 SECTION 1909A.
4. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
5. STEEL MATERIALS: PLATE ASTM A36, ALL THREAD ROD ASTM F1554 GRADE36 ( $F_u = 58$  KSI). BOLTS SUPPLIED BY MOBIL ASPECTS ARE STAINLESS STEEL CAP SCREW WITH TENSILE STRENGTH = 100 KSI AND STUDS ARE HH-0518-16 STAINLESS STEEL WITH TENSILE STRENGTH = 65 KSI.
6. CONCRETE SLABS:
  - a. FOR ELEVATED SOLID CONCRETE SLABS: 6" THICKNESS OF NORMAL WEIGHT CONCRETE WITH 3000 PSI MINIMUM STRENGTH.
  - b. METAL DECK: 3" DEEP COMPOSITE STEEL DECK, 20 GAGE MINIMUM, 4 1/2 INCH MINIMUM BOTTOM FLUTE WIDTH AND FLUTE SPACING OF 12", WITH 3 1/4 INCH SAND LIGHT WEIGHT CONCRETE CONCRETE COVER AT 3000 PSI MINIMUM STRENGTH.
  - c. FOR SLAB ON GRADE: 6" THICKNESS NORMAL WEIGHT CONCRETE AT 4000 PSI MINIMUM STRENGTH.
7. POST-INSTALLED CONCRETE ANCHORS: HILTI KWIK BOLT TZ (ESR-1917) 1/2" DIAMETER x 4" MIN. HOLE DEPTH (3 1/4" EFFECTIVE EMBEDMENT) AND 40 FT-LBS INSTALLATION TORQUE (SUPPLIED BY INSTALLATION CONTRACTOR).
8. EXERCISE DUE CARE WHEN DRILLING POST-INSTALLED ANCHORS TO AVOID DAMAGING CONCRETE REINFORCEMENT OR TENDONS.
9. PROVIDE FOR FULL ENGAGEMENT OF NUT AND WASHER.

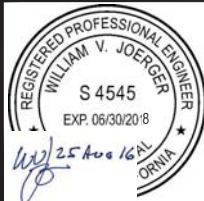
**RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD**

1. CONFIRM THE MATERIAL PROPERTIES AND THICKNESS OF THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ATTACHED MEETS THE REQUIREMENTS OF THIS OPM.
2. PROVIDE A PLAN FOR INSPECTION OF SUPPORTS AND ATTACHMENTS AND VERIFY ITS IMPLEMENTATION.
3. CONFIRM THE SPECIFIED MINIMUM CONCRETE EDGE DISTANCES ARE MAINTAINED BASED ON THE ACTUAL EQUIPMENT LOCATION. VERIFY THAT EXISTING OR NEW ANCHORS ARE AN ADEQUATE DISTANCE FROM THIS UNIT'S ATTACHMENT.
4. VERIFY THAT THE EXISTING STRUCTURE IS ADEQUATE FOR THE IMPOSED DEAD, LATERAL AND TENSION FORCES SHOWN IN ADDTION TO ALL OTHER LOADS.
5. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH CBC 2013 AND WITH THE OPM-0370-13 DETAILS INCLUDING MATERIALS AND DIMENSIONS OF THE SUPPORT WHERE THE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN.
6. VERIFY THAT THE PROJECT SPECIFIC  $S_{DS}$  AND  $z/h$  VALUES RESULT IN SEISMIC FORCES ( $E_h$  AND  $E_v$ ) DO NOT EXCEED THE VALUES

OPM-0370-13 MOBILE ASPECTS IRISCOPE AND IRISUPPLY CABINETS GENERAL NOTES



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OSHPD OPM-0370-13 CONST DWG - 1

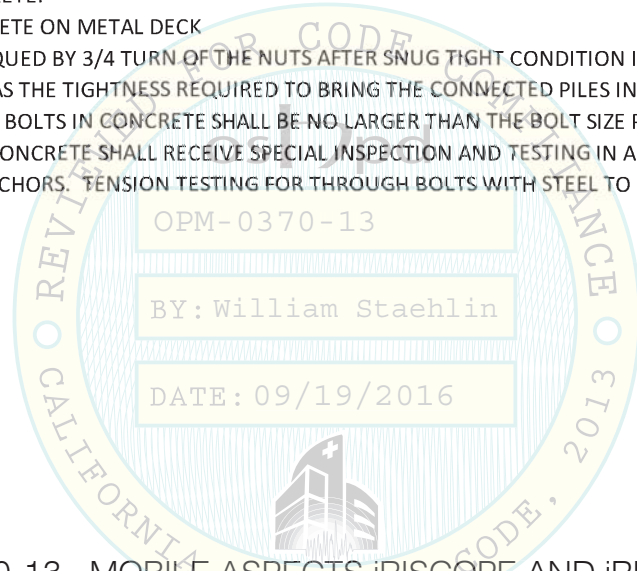


**OSHPD OPM-0370-13**

MANUFACTURE: MOBILE ASPECTS  
EQUIPMENT TYPE: INSTRUMENT CABINET

**ATTACHMENT NOTES:**

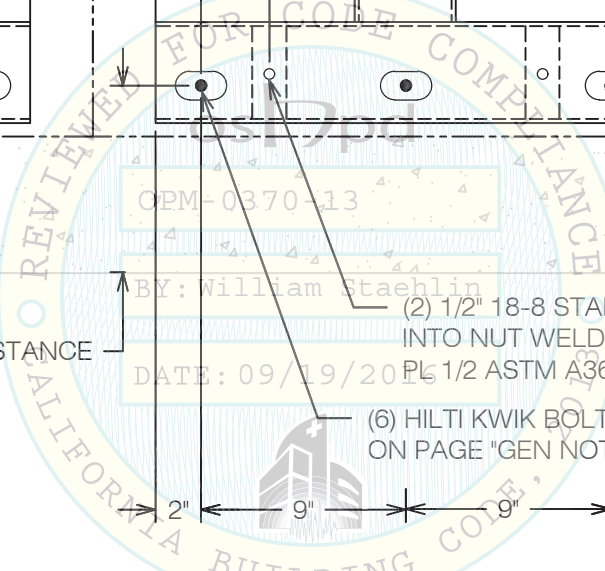
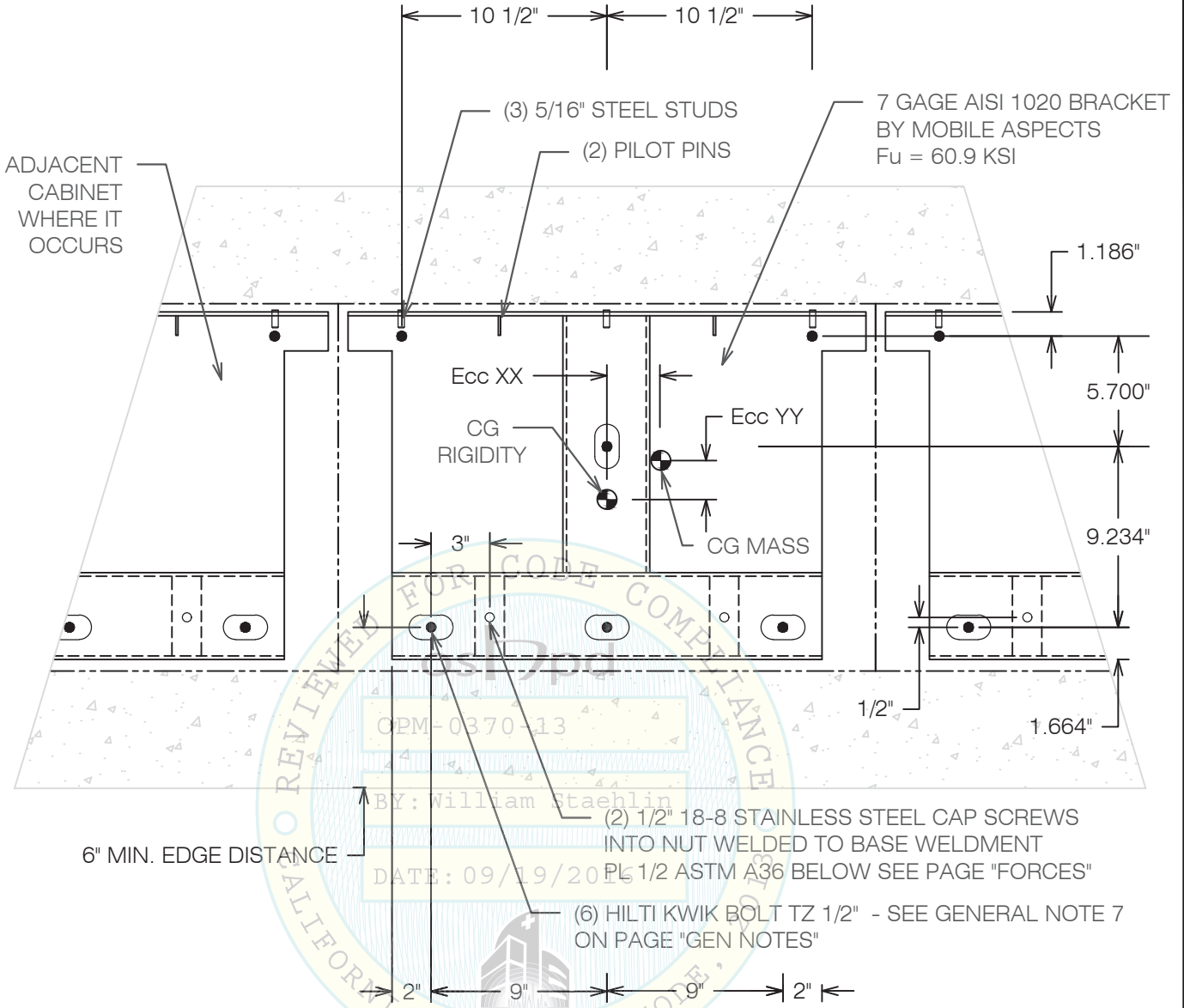
1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. PERIODIC SPECIAL INSPECTION PER CBC 2013 SECTION 1705A AND TABLE 1705A.3 INCLUDING VERIFICATION OF ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, ANCHOR SPACING, EDGE DISTANCES, CONCRETE MEMBER THICKNESS, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT AND ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. IN ADDITION, FOLLOW THE PROVISIONS OF THE 2013 CALIFORNIA BUILDING CODE SECTION 1913A.7.2 BY CONFIRMING THE INSTALLATION TORQUE SPECIFIED BY THE MANUFACTURER. TESTING IS NOT TO OCCUR UNTIL A MINIMUM OF 24 HOURS HAS ELAPSED AFTER THE INSTALLATION OF THE SUBJECT ANCHORS. TESTING SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR. TEST 50% OF THE ANCHORS FOR EACH PIECE OF EQUIPMENT. USING A CALIBRATED TORQUE WRENCH VERIFY THE INSTALLATION TORQUE IS OBTAINED WITHIN 1/2 TURN OF THE NUT. REPORT OF TEST RESULTS ARE TO BE SUBMITTED TO THE ENFORCEMENT AGENCY. THE SEOR SHALL PROVIDE REMEDIAL ANCHORAGE DETAILS IN THE EVENT THAT AN ANCHOR FAILS TO MEET THE TEST REQUIREMENTS.
3. STRENGTH DESIGN WAS USED FOR ANCHOR FORCE CALCULATIONS INCLUDING  $\Omega_0$  PER ACI 318-11 WHERE REQUIRED FOR ATTACHMENT TO CONCRETE.
4. BOLTS THROUGH CONCRETE ON METAL DECK
  - A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER SNUG TIGHT CONDITION IS ACHIEVED. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PILES INTO FIRM CONTACT.
  - B. HOLES FOR THROUGH BOLTS IN CONCRETE SHALL BE NO LARGER THAN THE BOLT SIZE PLUS 1/16" (BOLT DIA. + 1/16").
  - C. THROUGH BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION AND TESTING IN ACCORDANCE WITH THE REQUIREMENTS FOR POST-INSTALLED ANCHORS. TENSION TESTING FOR THROUGH BOLTS WITH STEEL TO STEEL CONNECTIONS DO NOT REQUIRE TENSION TESTING.



OPM-0370-13 MOBILE ASPECTS IRISCOPE AND IRISUPPLY CABINETS  
ATTACHMENT NOTES

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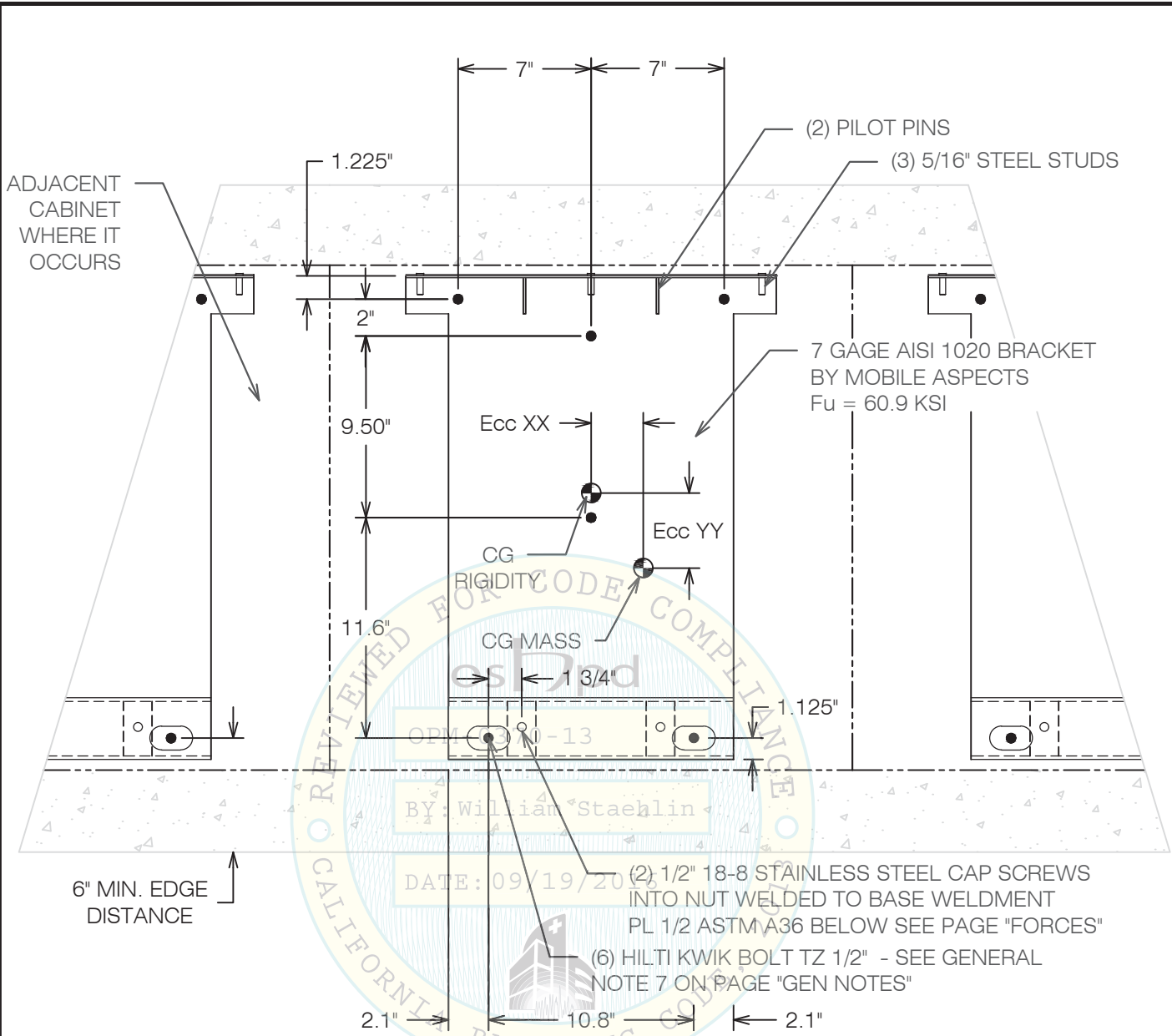
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OPM-0370-13 MOBILE ASPECTS IRISCOPE PLAN VIEW AT GRADE

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 REGISTERED PROFESSIONAL ENGINEER WILLIAM V. JOERGER S 4545 EXP. 06/30/2018 <i>WVJ</i> 25 Aug 16 CALIFORNIA	<b>DRAWN BY:</b> WVJ <b>DATE:</b> 07/28/16	
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OPM-0370-13 MOBILE ASPECTS IRISUPPLY AT PLAN VIEW GRADE

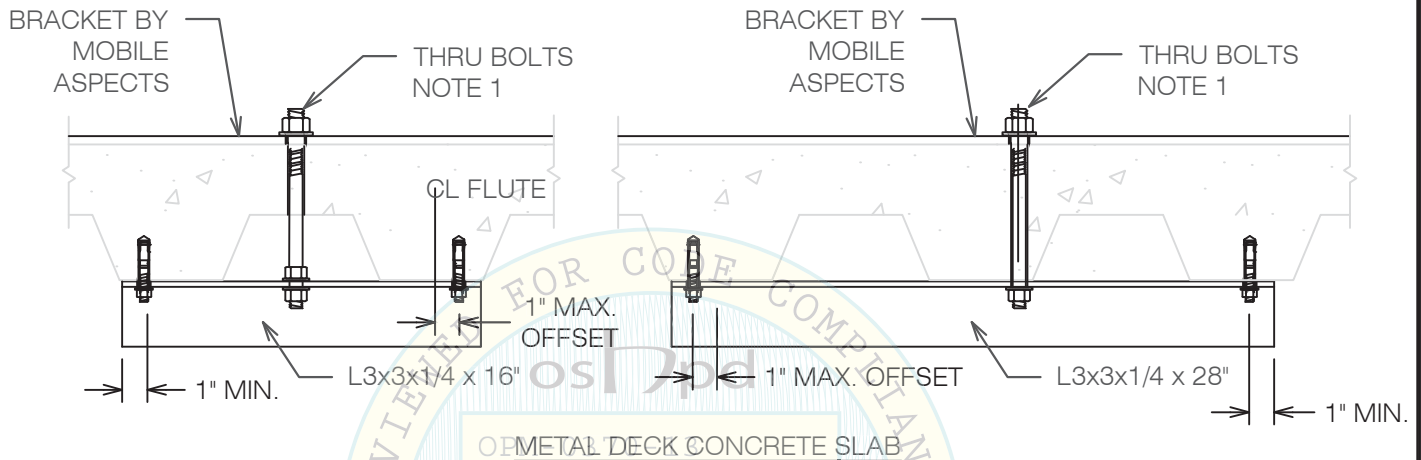
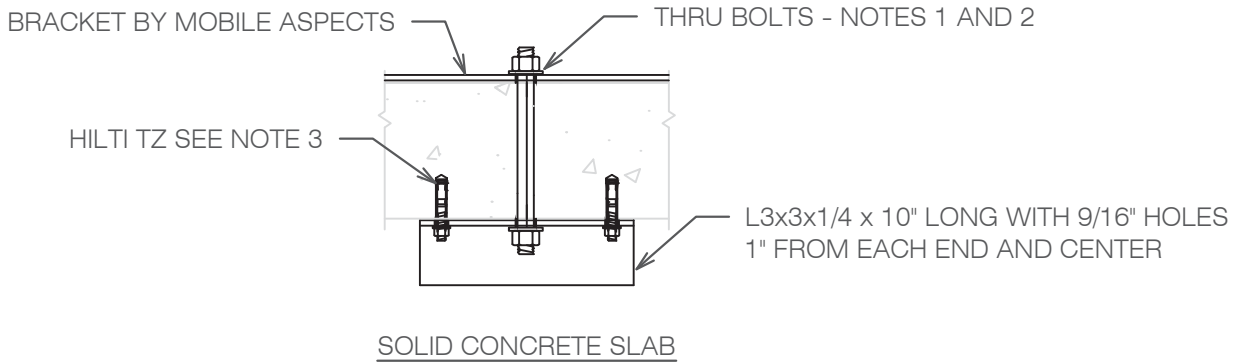


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(SEE PAGE "FORCES" FOR ELEVATION VIEW OF THE COMPONENT)

**NOTES:**

1. DRILL 9/16" HOLE IN THE CONCRETE SLAB TO RECEIVE THE 1/2" ASTM A36 STEEL RODS WITH MATCHING WASHERS AND NUTS. MAINTAIN 6" EDGE DISTANCE.
2. FOR LOCATIONS WHERE A TOP NUT CANNOT BE INSTALLED IN THE SUPPLEMENTAL STEEL ANGLE, DRILL AND TAP THE STEEL MATERIAL TO RECEIVE THE 1/2" EQUIPMENT ANCHORAGE BOLT.
3. ANCHOR INTO BOTTOM OF SLAB SHALL BE HILTI KWIK BOLT TZ (ESR-1917) 1/2" x 4" HOLE DEPTH (3 1/4" EFFECTIVE EMBEDMENT) AND 40 FT-LBS INSTALLATION TORQUE.
4. SEE PAGE "GEN NOTES" NOTE 6 FOR CONCRETE SLAB AND METAL DECK REQUIREMENTS.

OPM-0370-13 MOBILE ASPECTS MISCELLANEOUS STEEL AT ELEVATED SLABS



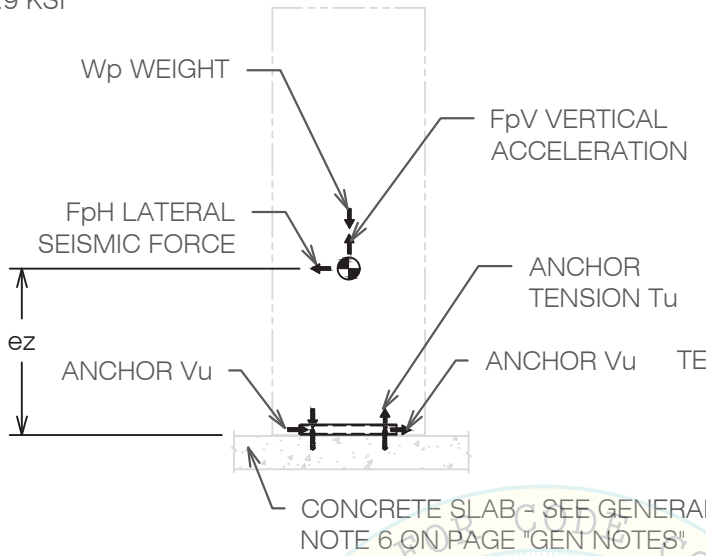
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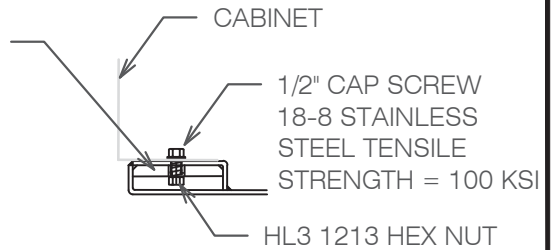
OSHPD OPM-0370-13 CONST DWG - 5

CABINET MATERIAL:  
 COLD ROLLED STEEL  
 16 GAGE (54 MIL)  
 ASTM A1008-1020  
 $F_u = 51.9$  KSI

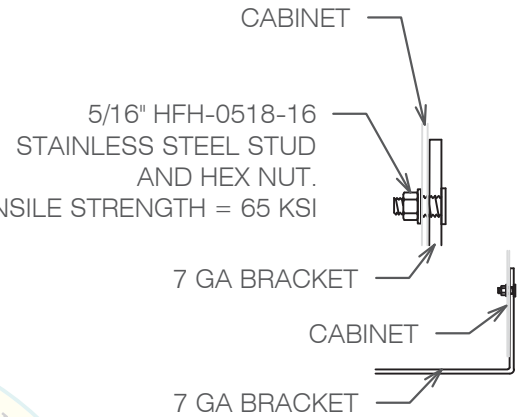
1/2" x 1 1/2" A36 STIFFENER PLATE  
 SHOP WELDED TO 7 GA BRACKET.  
 DRILL 9/16" HOLE FOR BOLT



CABINET FRONT ELEVATION



CABINET FRONT ATTACHMENT



CABINET REAR ATTACHMENT

Equipment Data		Seismic Design Forces at Grade				Seismic Design Forces at Elevated		
Model Series	Weight	ex (in)	ey (in)	ez (in)	Vu (lbs.)	Tu (lbs.)	Vu (lbs.)	Tu (lbs.)
iRISUPPLY	400	2.75	2.66	45.8	201	1,542	535	2,736
iRISCOPE	380	2.75	1.88	46.4	150	1,211	401	2,163

1. WEIGHTS AND MOMENTS ARE FACTORED LOADS USING STRENGTH DESIGN AND INCLUDE THE FOLLOWING FACTORS: DL = 0.9,  $F_{pH}$  AT GRADE = 1.13,  $F_{pH}$  ELEVATED = 3.00 AND  $F_{pV}$  = 0.5.
2. FORCES ARE AT STRENGTH DESIGN LEVEL AND INCLUDE A CONCRETE OVERSTRENGTH FACTOR  $\Omega_0 = 1.5$ .

OPM-0370-13 MOBILE ASPECTS ATTACHMENT FORCES



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