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

OFFICE USE ONLY
APPLICATION #: OPM-0078-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☒ New ☐ Renewal ☐ Update to Pre-CBC 2013 OPA Number: _____

Manufacturer Information

Manufacturer: Extron® Electronics

Manufacturer's Technical Representative: Dale Vipatapalin

Mailing Address: 1025 E. Ball Road, Anaheim, CA 92805

Telephone: 714-491-1500 ext. 6029 Email: dvipatapalin@extron.com

Product Information

Product Name: Extron® Electronics WMK 160 & PVM 220

Product Type: Electrical box/enclosure

Product Model Number: WMK 160 & PVM 220

General Description: The WMK 160 is a wall box for an audio visual system. The PVM 220 is a suspended ceiling mounted enclosure for an audio visual system.

Applicant Information

Applicant Company Name: Extron® Electronics

Contact Person: Dale Vipatapalin

Mailing Address: 1025 E. Ball Road, Anaheim, Ca 92805

Telephone: 714-491-1500 ext. 6029 Email: dvipatapalin@extron.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: _____ Date: 2/24/14

Title: Product Development Manager Company Name: Extron® Electronics

Registered Design Professional Preparing Engineering Recommendations

Company Name: CYS Structural Engineers, Inc.

Name: Dieter T. Siebald California License Number: S4346

Mailing Address: 2495 Natomas Park Drive, Suite 650, Sacramento, CA 95833

Telephone: 916-920-2020 Email: dieters@cyseng.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):

*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):

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: Date: July 16, 2014

Print Name: Jeffrey Y. Kikumoto

Title: Senior Structural Engineer

Condition of Approval (if applicable):

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

WMK 160 WALL MOUNTED EQUIPMENT SUPPORTS & ATTACHMENTS
PVM 220 OVERHEAD MOUNTED EQUIPMENT SUPPORTS & ATTACHMENTS
TABLE OF CONTENTS
OPM-0078-13

NOTES:

1. THESE DRAWINGS ARE PREPARED FOR EXTRON ELECTRONICS, ANAHEIM, CALIFORNIA.
2. THE CONTRACTOR AND INSPECTOR OF RECORD SHALL OBTAIN A COPY OF THIS PRE-APPROVAL FROM THE OSHPD PRE-APPROVAL PROGRAMS WEBSITE.
3. THIS PRE-APPROVAL COVERS THE SUPPORTS & ATTACHMENTS OF THE UNITS TO THE SUPPORTING STRUCTURE. THE UNITS ARE SUPPLIED BY EXTRON. ALL THREAD RODS, MOUNTING PLATES AND REQUIRED WALL SUPPORT ELEMENTS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.

SHEET TITLE: TABLE OF CONTENTS

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	1 of 13

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

GENERAL NOTES:

1. THIS OSHPD PRE-APPROVAL 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. IT IS THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD FOR A SITE SPECIFIC PROJECT TO VERIFY:
   - A. THE ADEQUACY OF THE NEW OR EXISTING STRUCTURE TO RESIST THE FORCES AND WEIGHT SPECIFIED FOR EACH EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE AND DESIGN SUPPLEMENTARY MEMBERS AS REQUIRED.
   - B. THAT THE FLOOR AND WALL ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB OR WALL EDGES OR OPENINGS.
   - C. THAT THE FLOOR AND WALL ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN WITHIN THIS DOCUMENT IS THE REQUIRED MINIMUM SPACING OF THE INDICATED DIAMETER ANCHOR BOLTS. THE REQUIRED SPACING FROM ANCHORS OF OTHER DIAMETERS AND EMBEDMENTS MAY VARY AND SHALL BE EVALUATED BY THE SEOR.
   - D. THAT THE INSTALLATION IS IN CONFORMANCE WITH THE CBC 2013 AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL.
   - E. THAT THE ACTUAL EQUIPMENT'S WEIGHT, CENTER OF GRAVITY (CG) LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS, AND THE MATERIAL AND GAUGE OF THE EQUIPMENT WHERE ATTACHMENTS ARE MADE, AGREE WITH THE INFORMATION SHOWN ON THE PRE-APPROVAL DOCUMENTS.
3. A. EXPANSION ANCHORS INSTALLED IN NORMAL WEIGHT OR SAND-LIGHTWEIGHT CONCRETE SHALL BE CARBON STEEL HILTI KB-TZ EXPANSION ANCHORS COMPLYING WITH ESR-1917 REISSUED MAY 1, 2013.
   - B. INSTALLATION: INSTALL THE EXPANSION ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THE ICC EVALUATION REPORT FOR THE SPECIFIC ANCHOR AND THE PARAMETERS GIVEN IN THE TABLE ON PAGE 3.
   - C. JOB TESTING: FOR VERIFYING SATISFACTORY INSTALLATION WORKMANSHIP, PERFORM JOB SITE TESTING IN ACCORDANCE WITH THE TORQUE LOAD TABLE PROVIDED IN THIS DOCUMENT. TEST 50% OF THE INSTALLED ANCHORS. THE TEST LOAD MAY BE APPLIED BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TENSION IN THE ANCHOR SUCH AS CALIBRATED TORQUE WRENCH METHOD. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE INSPECTOR OF RECORD. REPORT OF TEST RESULTS SHALL BE SUBMITTED TO OSHPD. IF ANY ANCHOR FAILS THE TEST, TEST ALL ANCHORS. THE TEST SHALL BE PERFORMED 24 HOURS OR MORE AFTER INSTALLATION. TESTING MAY BE DONE PRIOR TO EQUIPMENT INSTALLATION. ALSO REFER TO CBC 1913A.7 "FIELD TESTS FOR POST-INSTALLED ANCHORS IN CONCRETE".
   - D. FAILURE/ACCEPTANCE CRITERIA: THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
     - TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE: ONE-HALF (½) TURN OF THE NUT.

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: GENERAL NOTES

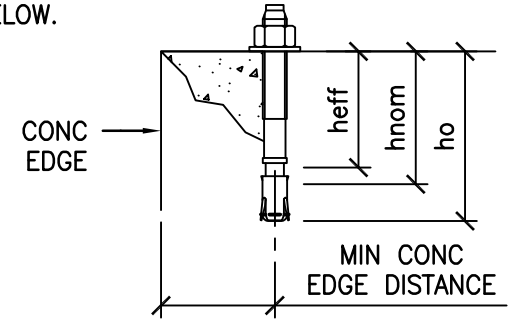
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	2 of 13

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

GENERAL NOTES CONTINUED:

3E. TEST VALUES: APPLY TEST LOADS TO ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE, SEE TABLE BELOW.

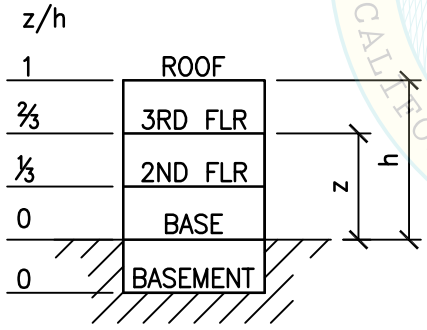


MECHANICAL ANCHOR

ANCHOR DIA (INCH) da	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) heff	HOLE DEPTH (INCH) ho	MIN CONC THICKNESS (INCH) h	MIN CONC EDGE DISTANCE (INCH)	MIN AB SPACING (INCH)	TEST LOAD TORQUE (FT-LBS)	CONDITION OF ANCHORAGE
3/8	2 5/16	2	2 5/8	4*	6	6 3/4	25	CASE 1

* SEE PAGE 11 FOR UNDERSIDE OF METAL DECK DETAIL.

4. A SINGLE CASE OF ANCHORAGE IS SPECIFIED AND PRESENTED IN THIS PRE-APPROVAL:



BUILDING ELEV

CASE 1: ANCHORAGE DETAILS LOCATED AT ANY LEVEL OF A BUILDING (z/h<=1.0), IT IS ASSUMED THAT THE FLOORS ARE BUILT OF A MINIMUM 3¼" SAND-LIGHT WEIGHT CONCRETE OR NORMAL WEIGHT CONCRETE TOPPING OVER METAL DECK OR 4" NORMAL WEIGHT CONCRETE SLAB (f'c = 3000 PSI, MINIMUM).

5. THIS PRE-APPROVAL MAY BE USED AT ANY GEOGRAPHICAL LOCATION IN THE STATE OF CALIFORNIA. WHERE S_{DS} IS LESS THAN OR EQ TO 2.50.

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: GENERAL NOTES (CONTINUED)

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	3 of 13

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

ABBREVIATIONS:

@	AT
ASD	ALLOWABLE STRENGTH DESIGN
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
CBC	CALIFORNIA BUILDING CODE
CG	CENTER OF GRAVITY
℄	CENTERLINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
COORD	COORDINATE
DIA (ø)	DIAMETER
DTL	DETAIL
(E)	EXISTING CONDITION
EA	EACH
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
f'c	MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE
FLG(S)	FLANGE(S)
FLR	FLOOR
Fp	HORIZONTAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS
FT (')	FOOT/FEET
F_{pv}	VERTICAL SEISMIC FORCE PER ASCE 7-10 SEISMIC FORCE REQUIREMENTS
F_y	SPECIFIED YIELD STRENGTH OF REINFORCING, PSI OR SPECIFIED MINIMUM YIELD STRESS OF STEEL, KSI
GA	GAUGE
GWB	GYPSUM WALL BOARD
ICC	INTERNATIONAL CODE COUNCIL
IN (")	INCH
INFO	INFORMATION
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
LRFD	LOAD & RESISTANCE FACTOR DESIGN
LWC	LIGHT WEIGHT CONCRETE
MAX	MAXIMUM
MIN	MINIMUM
MFR	MANUFACTURER
MTL	METAL
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
OPM	OSPHD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION
OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT
PG(S)	PAGE(S)
PL	PLATE
PSI	POUNDS PER SQUARE INCH
REQ	REQUIRED
SEOR	STRUCTURAL ENGINEER OF RECORD
SLWC	SAND LIGHT WEIGHT CONCRETE
SMS	SHEET METAL SCREWS
SS	STAINLESS STEEL
STL	STEEL
T&B	TOP & BOTTOM
THK	THICK
THRD	THREAD OR THREADED
TYP	TYPICAL
W_p	COMPONENT OPERATING WEIGHT
W/	WITH
WT	WEIGHT

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: ABBREVIATIONS

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	4 of 13

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

DESIGN CRITERIA

SUPPORT & ATTACHMENT DESIGN FOR ELECTRICAL EQUIPMENT ATTACHED TO WALL IS PER 2013 CBC AT LRFD LEVEL FORCES. (WMK 160)

W_p = 15 LBS
z/h <= 1.0 UPPER FLOORS ABOVE THE BASE
S_{DS} = 2.50
I_p = 1.5
a_p = 2.5
R_p = 6.0
MIN $Fp = 0.30\ S_{DS}\ Ip\ Wp = 1.125\ Wp$
MAX $Fp = 1.60\ S_{DS}\ Ip\ Wp = 6.000\ Wp$
$Fp = 0.4a_p\ S_{DS}\ Ip\ Wp\ (1+2\ z/h)/Rp = 1.875\ Wp = 28$ LBS
$F_{pv} = \pm 0.20\ S_{DS}\ Wp = \pm 0.50\ Wp = \pm 7.5$ LBS

SUPPORT & ATTACHMENT DESIGN FOR ELECTRICAL EQUIPMENT ATTACHED TO OVERHEAD SUPPORT IS PER 2013 CBC AT LRFD LEVEL FORCES. (PVM 220)

W_p = 35 LBS
z/h <= 1.0 UPPER FLOORS ABOVE THE BASE
S_{DS} = 2.50
I_p = 1.5
a_p = 2.5
R_p = 6.0
MIN $Fp = 0.30\ S_{DS}\ Ip\ Wp = 1.125\ Wp$
MAX $Fp = 1.60\ S_{DS}\ Ip\ Wp = 6.000\ Wp$
$Fp = 0.4a_p\ S_{DS}\ Ip\ Wp\ (1+2\ z/h)/Rp = 1.875\ Wp = 66$ LBS
$F_{pv} = \pm 0.20\ S_{DS}\ Wp = \pm 0.50\ Wp = \pm 17.5$ LBS

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

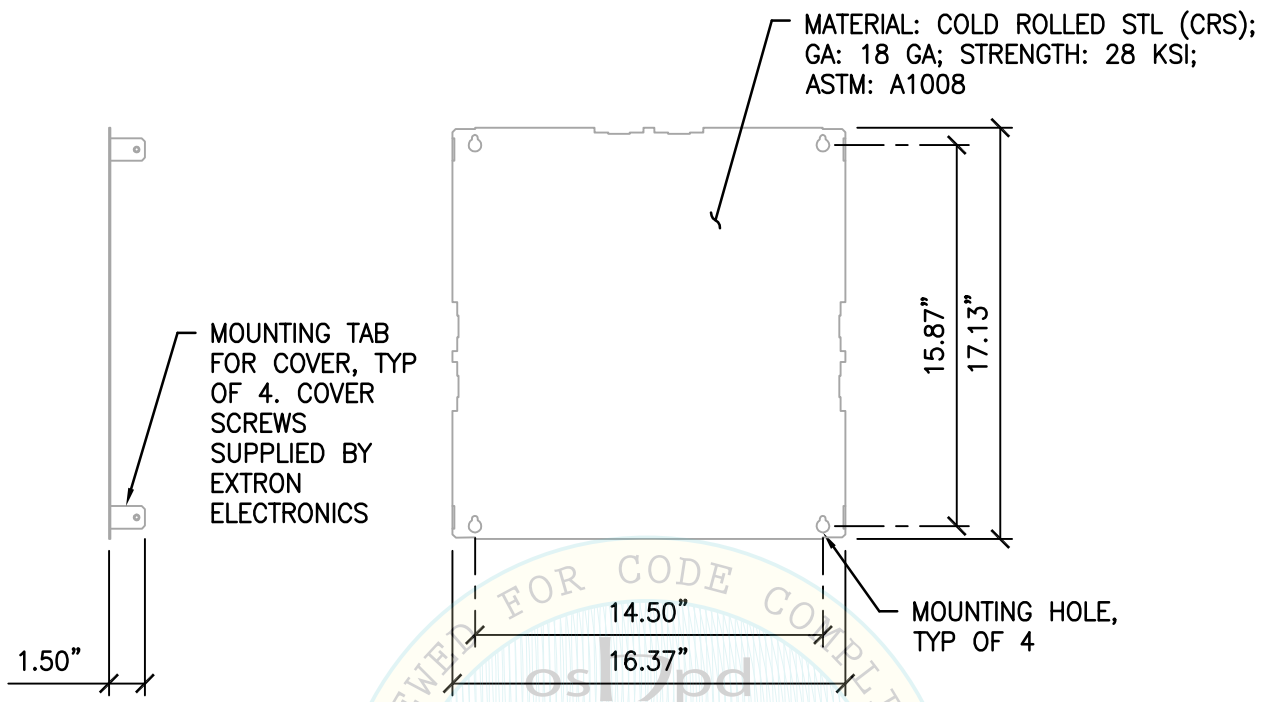
SHEET TITLE: DESIGN CRITERIA

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	5 of 13

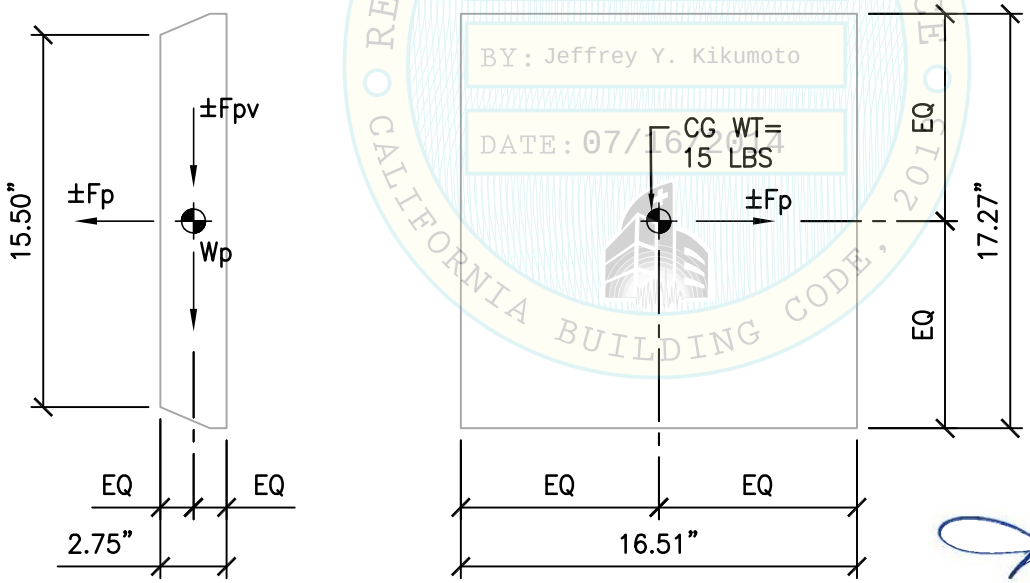
EXTRON ELECTRONICS
WMK 160 & PVM 220

Extron Electronics
INTERFACING, SWITCHING AND CONTROL



BASE SIDE VIEW

BASE FRONT VIEW



COVER SIDE VIEW

COVER FRONT VIEW

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

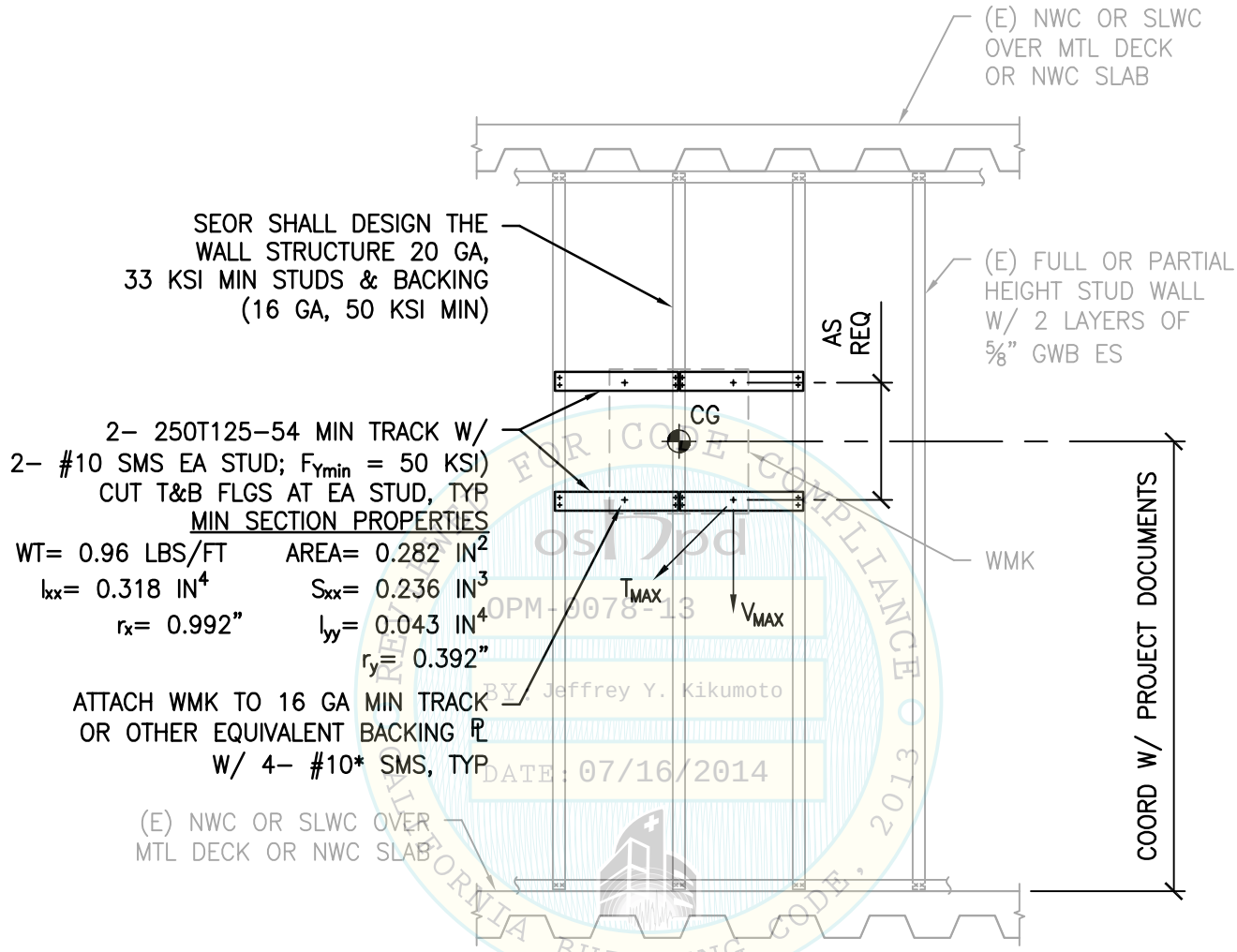
SHEET TITLE: WMK 160 ELEVATIONS

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	6 of 13

L:\Jobs13\13127 Extron Electronics - OPM-0078-13\STRU\S1.dwg Time:Jul16,2014-10:36am Login:camachom Dimscale:1 LTScale:6

Extron Electronics
INTERFACING, SWITCHING AND CONTROL



ASD LEVEL

* T_{MAX}= 22#/#10 SMS
V_{MAX}= 22#/#10 SMS

NOTE:
AS AN ALTERNATE, THE WMK MAY BE ATTACHED DIRECTLY TO (E) WALL STUDS W/ 4- #10 SMS MIN IF THE UNIT ATTACHMENT HOLES ALIGN W/ THE ℄ OF THE STUD FLG, TYP

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: WMK 160
STUD WALL ATTACHMENT

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

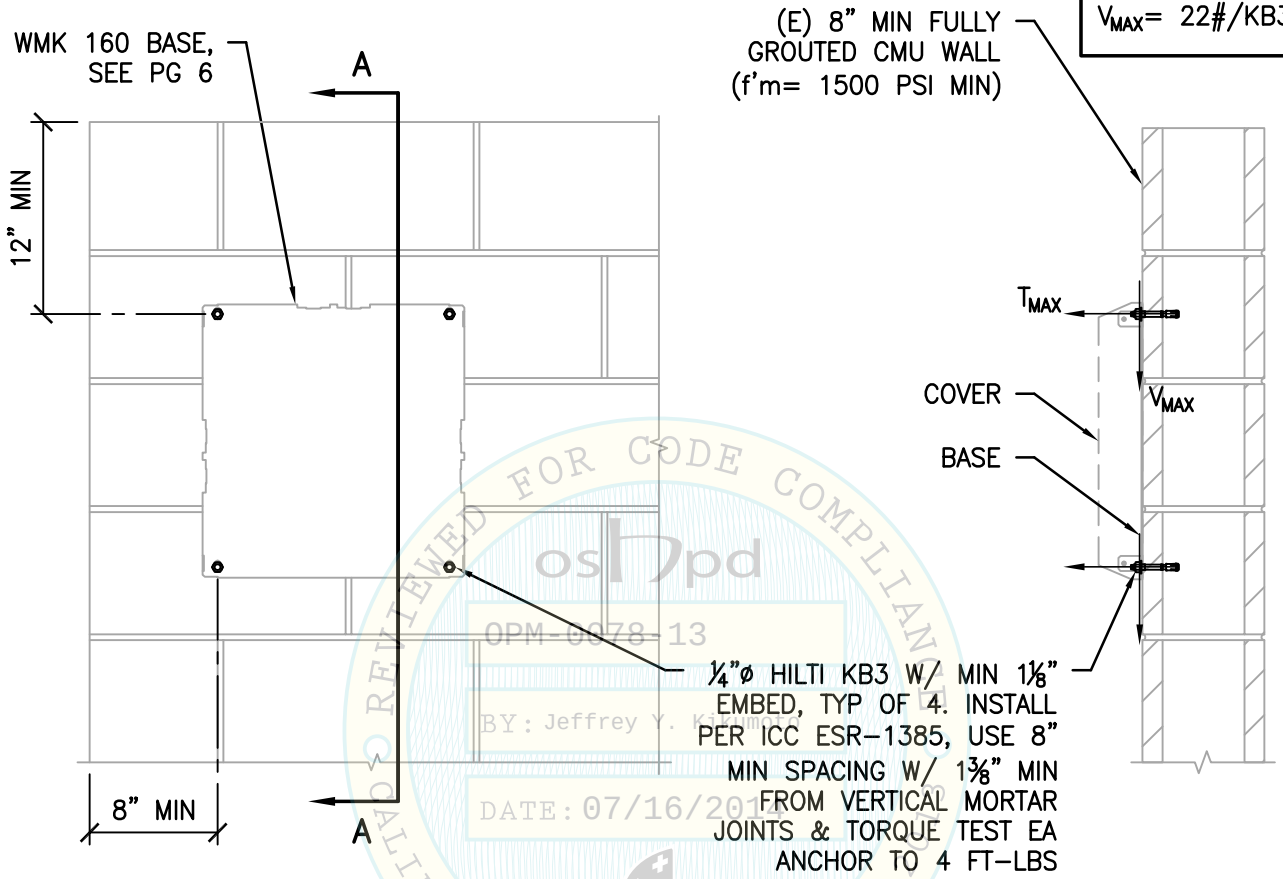
Job No:	13127
Date:	06-30-2014
Page:	7 of 13

L:\Jobs13\13127 Extron Electronics - OPM-0078-13\STRU\S1.dwg Time:Jul16,2014-10:36am Login:camachom Dimscale:1 LTScale:6

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

ASD LEVEL

T_{MAX}= 22#/KB3
V_{MAX}= 22#/KB3



ELEVATION

SIDE VIEW A-A

ACCEPTANCE CRITERIA:

THE SEOR SHALL VERIFY THAT:

1. MASONRY IS NOT CRACKED AS DEFINED IN ICC-ES AC01 SECTION 2.3. SEOR SHALL PROVIDE CALCULATIONS TO SHOW THAT THE MASONRY WALL WOULD NOT CRACK UNDER THE DESIGN EARTHQUAKE LOADS UNDER ALL SERVICE LOAD CONDITIONS. THE WALL HAS TO REMAIN ELASTIC.
2. MASONRY IS FULLY GROUTED IN ACCORDANCE W/ ESR-1385 SECTION 3.2.
3. CONDITION OF USE REQUIREMENTS IN ACCORDANCE W/ ESR-1385 SECTION 5.0 IS SATISFIED.

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

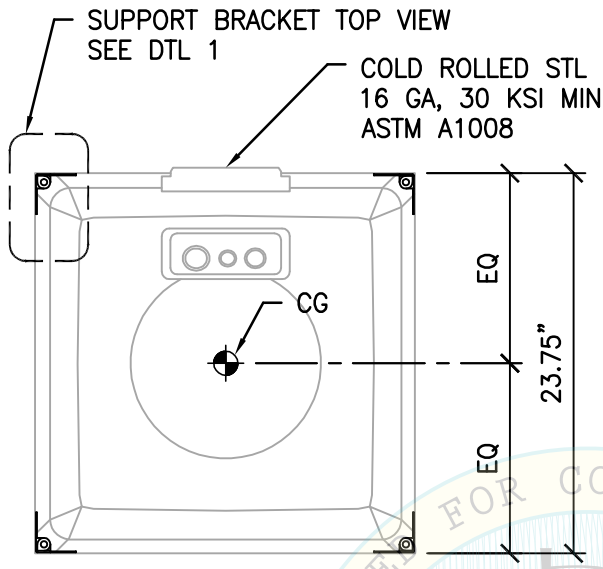
SHEET TITLE: WMK 160
MASONRY WALL ATTACHMENT

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

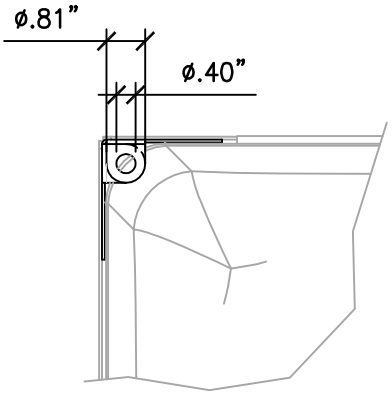
Job No:	13127
Date:	06-30-2014
Page:	8 of 13

L:\Jobs13\13127 Extron Electronics - OPM-0078-13\STRU\S1.dwg Time:Jul16,2014-10:36am Login:camachom Dimscale:1 LTScale:6

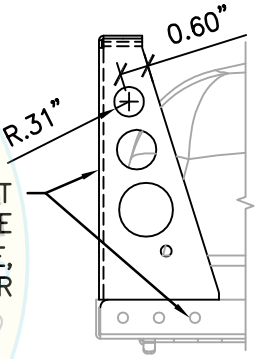
Extron Electronics
INTERFACING, SWITCHING AND CONTROL



PLAN VIEW A–A

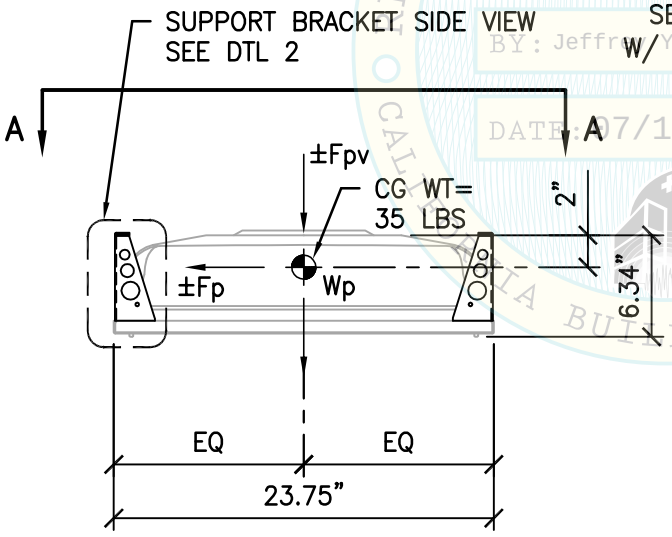


DETAIL 1
NTS



PVM220 SUPPORT BRACKET
SECURED TO PVM FRAME
W/ 4 RIVETS, 2 PER SIDE,
CONNECTION BY MFR

DETAIL 2
NTS



ELEV

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: PVM 220
PLAN & ELEVATIONS

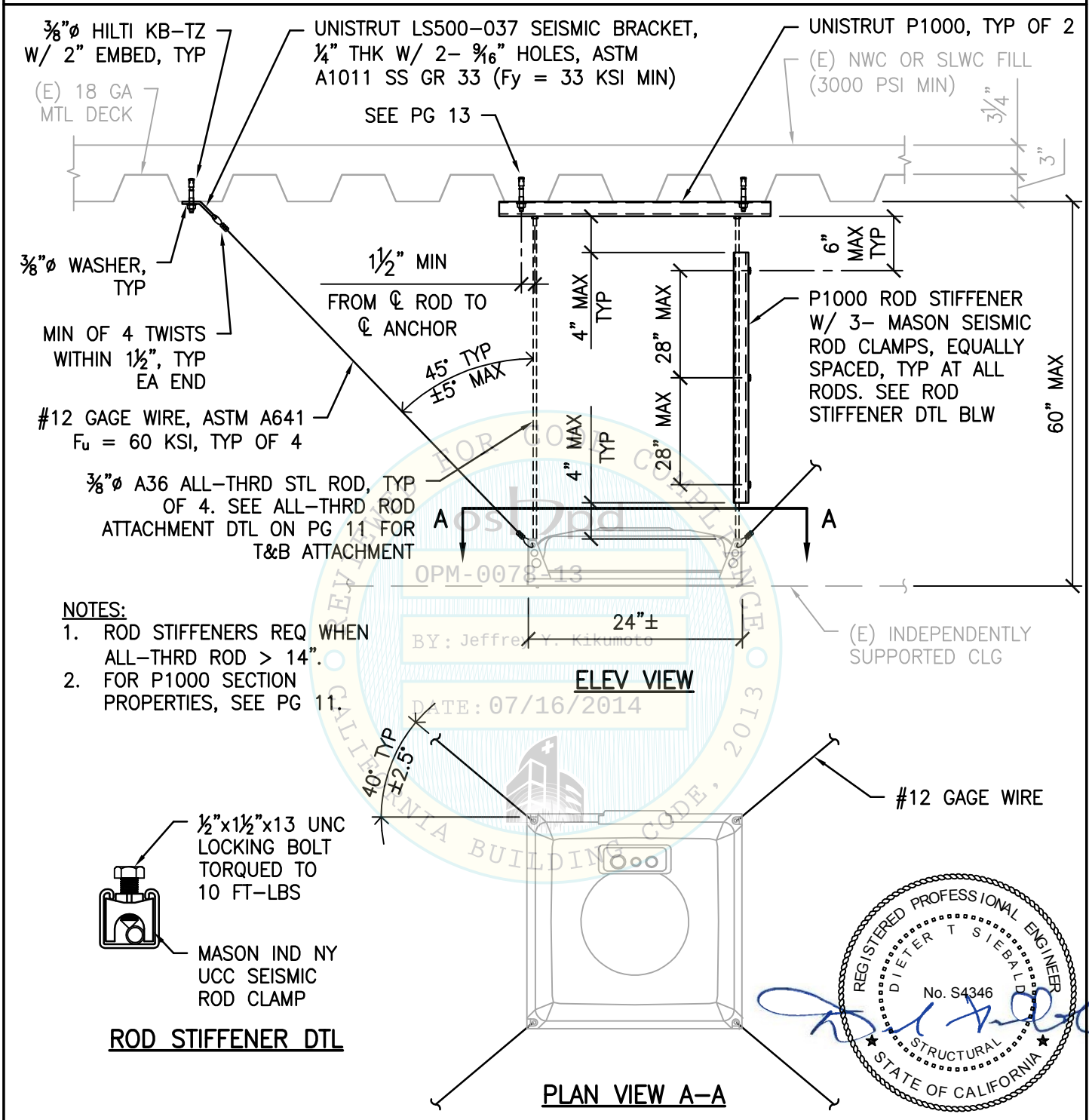
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	9 of 13

L:\Jobs13\13127 Extron Electronics - OPM-0078-13\STRU\S1.dwg Time:Jul16,2014-10:36am Login:camachom Dimscale:1 LTScale:6

EXTRON ELECTRONICS
WMK 160 & PVM 220

Extron Electronics
INTERFACING, SWITCHING AND CONTROL



NOTES:
1. ROD STIFFENERS REQ WHEN ALL-THRD ROD > 14".
2. FOR P1000 SECTION PROPERTIES, SEE PG 11.

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: PVM 220 - OPTION 1:
UNDERSIDE OF METAL DECK SUPPORT & ATTACHMENT

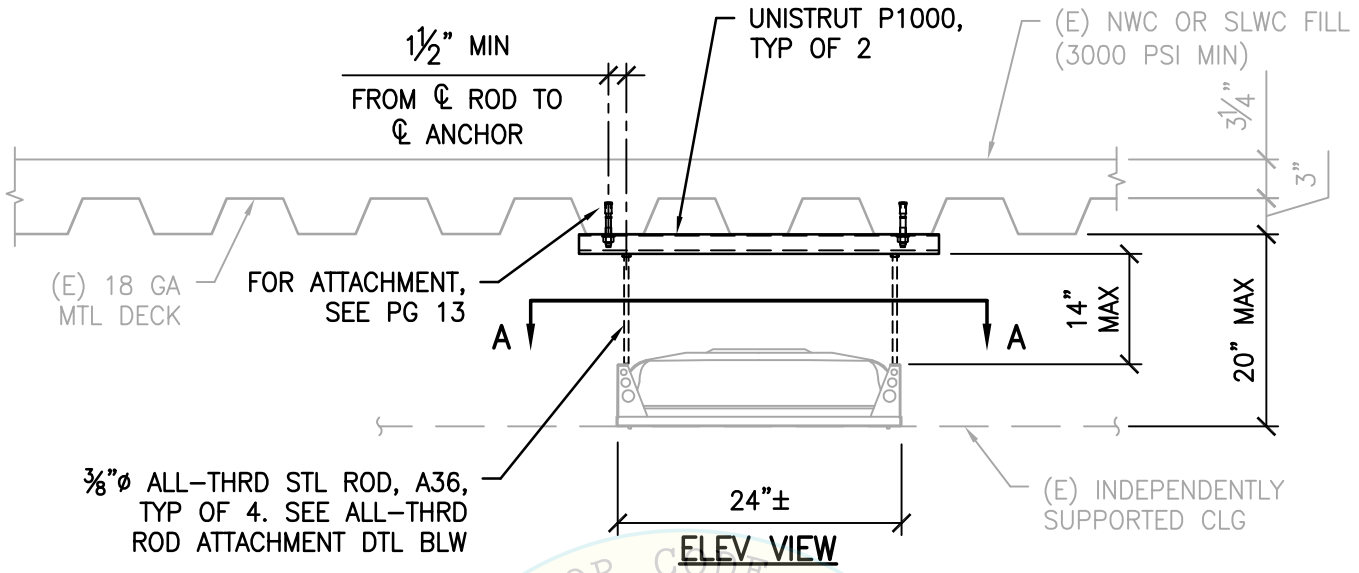
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	10 of 13

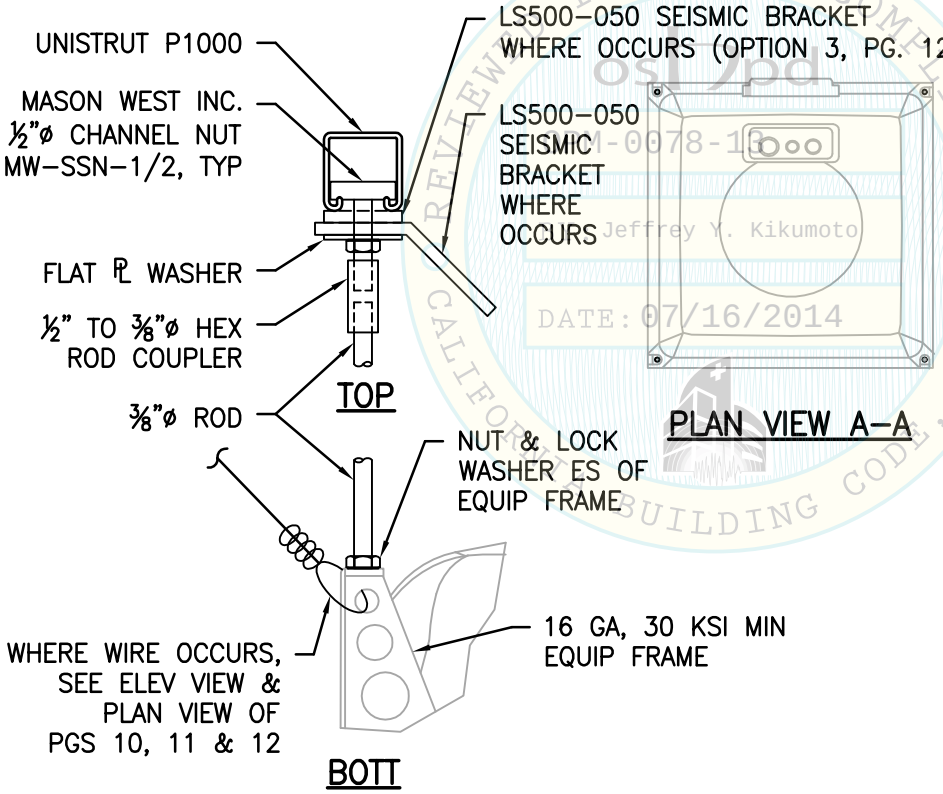
L:\Jobs13\13127 Extron Electronics - OPM-0078-13\STRU\S1.dwg Time:Jul16,2014-10:36am Login:camachom Dimscale:1 LTScale:6

EXTRON ELECTRONICS
WMK 160 & PVM 220

Extron Electronics
INTERFACING, SWITCHING AND CONTROL



ELEV VIEW



PLAN VIEW A-A

P1000 (MIN SECTION PROPERTIES)			
WT=	1.89 LBS/FT	AREA=	0.555 in^2
I_{yy}=	0.236 in^4	S_{xx}=	0.202 in^3
r_{yy}=	0.651"	I_{xx}=	0.185 in^4
S_{yy}=	0.290 in^3	r_{xx}=	0.577"

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

ALL-THRD ROD ATTACHMENT DTL

SHEET TITLE: PVM 220 - OPTION 2:
UNDERSIDE OF METAL DECK SUPPORT & ATTACHMENT

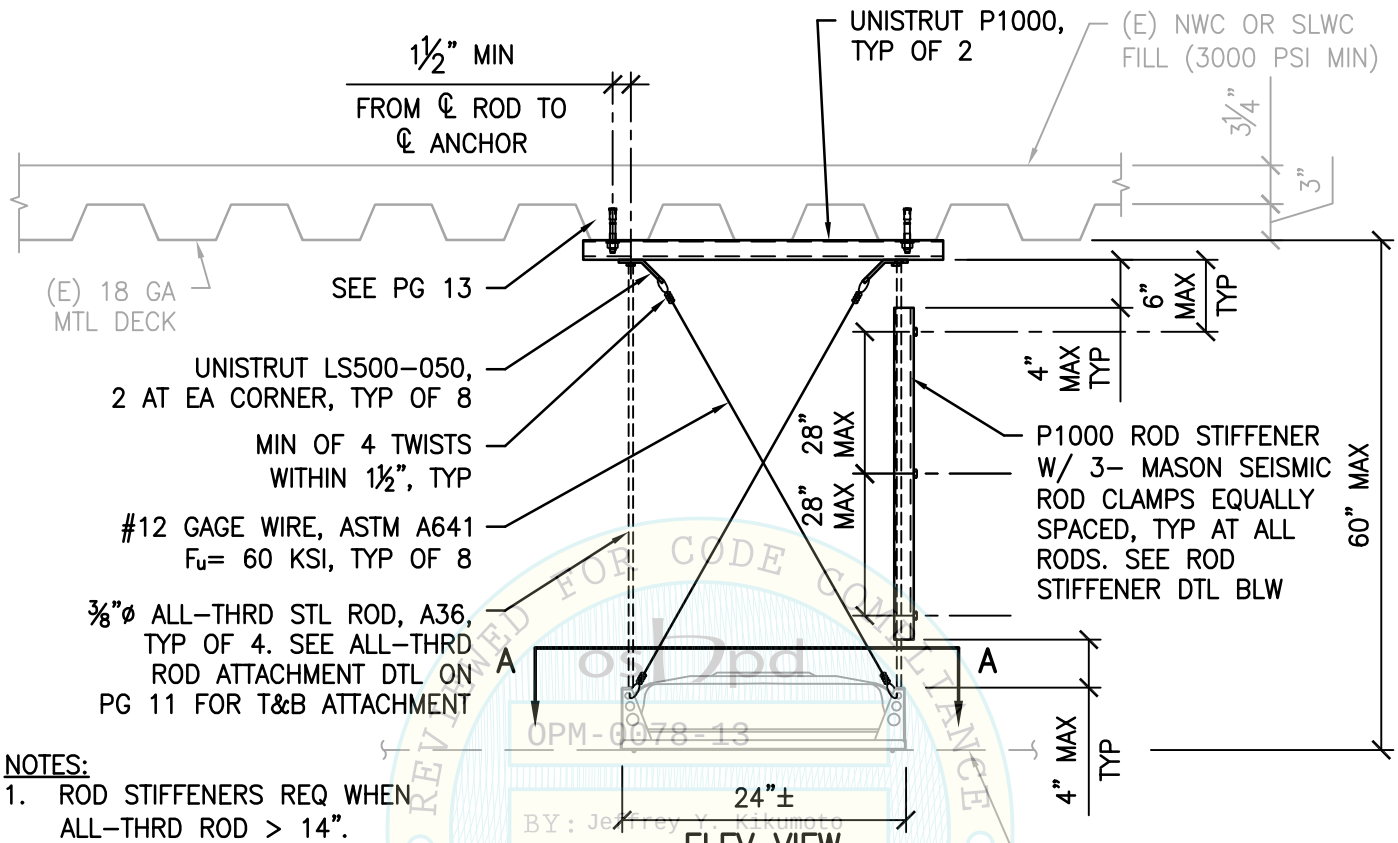
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	11 of 13

L:\Jobs13\13127 Extron Electronics - OPM-0078-13\STRU\S1.dwg Time:Jul16,2014-10:37am Login:camachom Dimscale:1 LTScale:6

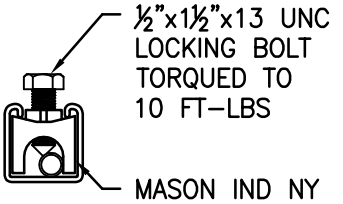
EXTRON ELECTRONICS
WMK 160 & PVM 220

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

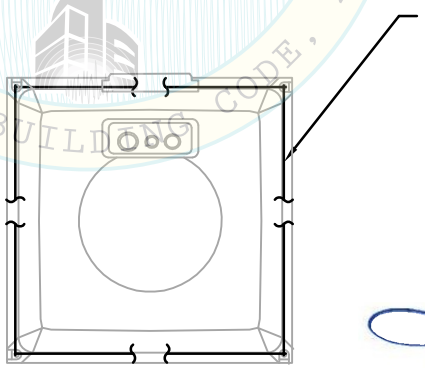


ELEV VIEW

NOTES:
1. ROD STIFFENERS REQ WHEN ALL-THRD ROD > 14".
2. FOR P1000 SECTION PROPERTIES, SEE PG 11.
3. FOR INFO NOT SHOW OR NOTED, SEE PG 10.



ROD STIFFENER DTL



PLAN VIEW A-A

REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: PVM 220 - OPTION 3:
UNDERSIDE OF METAL DECK SUPPORT & ATTACHMENT

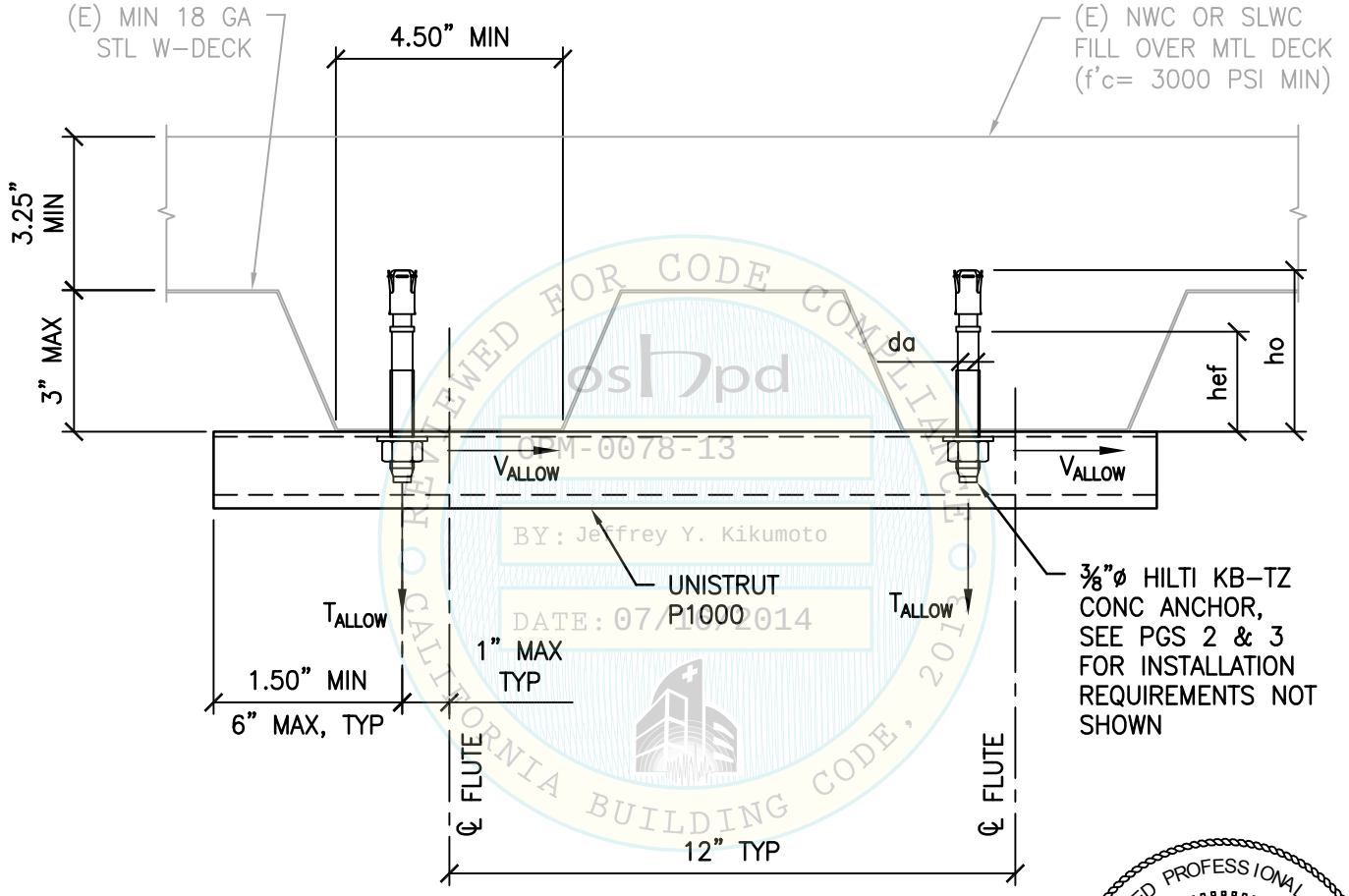
CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	12 of 13

L:\Jobs13\13127 Extron Electronics - OPM-0078-13\STRU\S1.dwg Time:Jul16,2014-10:37am Login:camachom Dimscale:1 LTScale:6

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

AT ASD	
T_{ALLOW} =	610#/AB
V_{ALLOW} =	747#/AB



REGISTERED PROFESSIONAL ENGINEER
DIETER T SIEBALD
No. S4346
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE: PVM 220
UNDERSIDE OF METAL DECK

CYS STRUCTURAL ENGINEERS, INC.
2495 NATOMAS PARK DRIVE, SUITE 650
SACRAMENTO, CA 95833
TEL (916) 920-2020
www.cyseng.com

Job No:	13127
Date:	06-30-2014
Page:	13 of 13

L:\Jobs13\13127 Extron Electronics - OPM-0078-13\STRU\S1.dwg Time:Jul16,2014-10:37am Login:camachom Dimscale:1 LTScale:6