

**DEGENKOLB ENGINEERS** 

300 South Grand Ave. #1115, Los Angeles, CA 90071

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# Office Of Statewide Health Planning And Development ANCHORAGE PRE-APPROVAL

**OPA - 2150 - 07** 

PRODUCT MANUFACTURER: PETER PEPPER PRODUCTS
PRODUCT NAME/TYPE/MODEL: GALLERIE RACKS [Models 4041, 4042, 4043, 4044]

#### **GENERAL NOTES:**

 FORCES ARE DETERMINED PER 2007 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 11, 12 AND 13 USING THE FOLLOWING EQUATION (EQ. 13.3-2):

Fp = 1.6 SDs lp Wp = 4.62 WpFv = 0.2 SDs Wp = 0.39 Wp WHERE,

SDs = 2/3 Fa Ss = 1.927g (EQ. 11.4-3)

lp 1.50

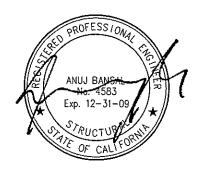
Fa 1.00

Ss 2.89 g

Wp MAXIMUM OPERATING WEIGHT

NOTE THAT THE FORCE LEVEL IS FOR STRENGTH DESIGN

- 2. THIS PRE-APPROVAL CONFORMS TO THE 2007 CALIFORNIA BUILDING CODE.
- 3. THE DETAILS IN THIS PRE-APPROVAL MAY BE USED AT ANY LOCATION IN THE STATE OF CALIFORNIA.
- 4. THE DETAILS MAY BE USED FOR ANY LEVEL OF THE BUILDING WHERE THE ABOVE STATED PRODUCT IS LOCATED.







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OPA - 2150 - 07

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PRODUCT NAME/TYPE/MODEL: GALLERIE RACKS [Models 4041, 4042, 4043, 4044]

### **GENERAL NOTES (CONT'D):**

- ALL LOADS SHOWN ON THE CALCULATIONS ARE BASED ON STRENGTH DESIGN.
- 6. THIS UNIT DOES NOT REQUIRE SEISMIC CERTIFICATION.
- 7. TYPICAL DIMENSIONAL TOLERANCE IS  $\pm \frac{1}{4}$ ".

### RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD:

- 1. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS.
- VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY WALL OPENINGS.
- 3. VERIFY THE INSTALLATION IS IN CONFORMANCE WITH THE 2007 CBC AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN IN THIS PRE-APPROVAL.
- 4. VERIFY THAT THE CONCRETE WALL / CMU WALL WHICH THE UNIT IS ANCHORED IS NOT CRACKED.
- 5. DESIGN ANY SUPPLEMENTARY MEMBERS AND THEIR ATTACHMENTS WHICH THE UNIT IS ANCHORED TO. VERIFY THE ADEQUACY OF ANY EXISTING MEMBERS AND THEIR ATTACHMENTS WHICH THE UNIT IS ANCHORED TO, FOR THE FORCES EXERTED ON THEM BY THE UNIT IN ADDITION TO ALL OTHER LOADS AND FORCES.







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PRODUCT NAME/TYPE/MODEL: GALLERIE RACKS [Models 4041, 4042, 4043, 4044]

### MATERIAL SPECIFIC NOTES FOR SUPPORTING STRUCTURAL MEMBERS:

LIGHT GAGE METAL:
 MINIMUM GAGE: 20 GA.
 MINIMUM YIELD STRENGTH (fy) = 33 KSI

WOOD:

MINIMUM GRADE: DOUGLAS FIR NO.3 OR BETTER MINIMUM SPECIFIC GRAVITY (G) = 0.46

CONCRETE:

MINIMUM UNIT WEIGHT = 110 pcf (LIGHT WEIGHT CONCRETE)
MINIMUM UNIT WEIGHT = 145 pcf (NORMAL WEIGHT CONCRETE)
MINIMUM COMPRESSIVE STRENGTH (f'c) = 2000 PSI

4. MASONRY:

MINIMUM COMPRESSIVE STRENGTH (fm) = 1500 PSI

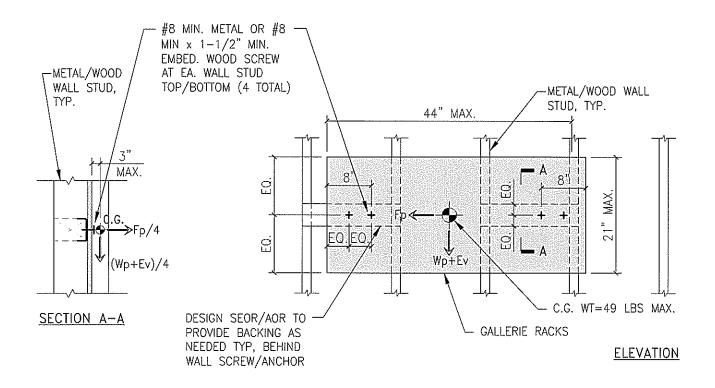
- 5. SEE 2007 CALIFORNIA BUILDING CODE FOR MORE INFORMATION AND OTHER REQUIREMENTS.
- 6. IF THE WOOD MATERIAL USED HAS A LOWER QUALITY THAN WHAT IS SPECIFIED ABOVE, SEOR SHALL EVALUATE THE BACKING SUPPORT DESIGN.





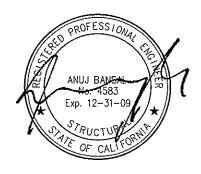
# Degenkolb Engineers 300 S. Grand Ave. #1115, Los Angeles, CA 90071 (213) 596-5000 - (213) 596-5960 PETER PEPPER PRODUCTS GALLERIE RACKS MODELS 4041, 4042, 4043, 4044 Designed By TY Project # A8621021.00 Date 10/24/2008

MODEL 4041 - METAL/WOOD STUDWALL ATTACHMENT



#### MAXIMUM DEMANDS AT WALL SCREWS

CASE 1: EQ FORCE PERPEND. TO WALL		
TENSION = 62.2 LBS	SHEAR = 19.5 LBS	
CASE 2: EQ FORCE PARALLEL TO WALL		
TENSION = 7.7 LBS	SHEAR = 59.9 LBS	





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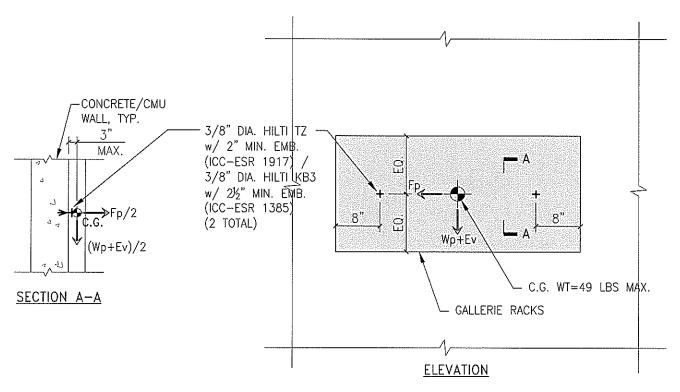
### PETER PEPPER PRODUCTS

GALLERIE RACKS MODELS 4041, 4042, 4043, 4044 Designed By TY

Project # A8621021.00

Date 10/24/2008

MODEL 4041 - CONCRETE/CMU WALL ATTACHMENT



#### **MAXIMUM DEMANDS AT WALL ANCHORS**

CASE 1: EQ FORCE PERPEND. TO WALL		
TENSION = 161.6 LBS	SHEAR = 50.6 LBS	
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TENSION = 20.1 LBS | SHEAR = 155.6 LBS

NOTES:

1. SEE PAGE 4 FOR INFO NOT SHOWN





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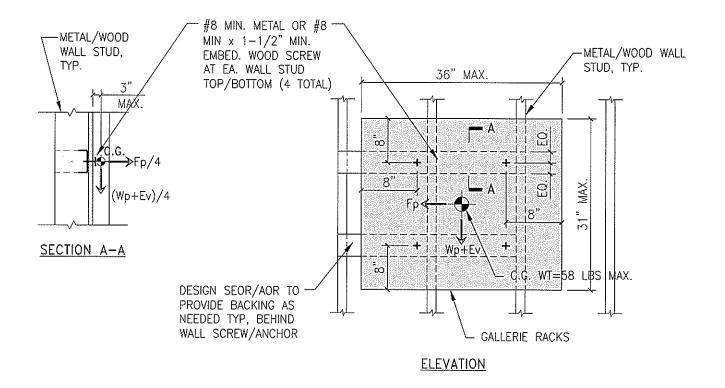
### PETER PEPPER PRODUCTS

GALLERIE RACKS MODELS 4041, 4042, 4043, 4044 Designed By TY

Project # A8621021.00

Date 10/24/2008

MODEL 4042 - METAL/WOOD STUDWALL ATTACHMENT



### MAXIMUM DEMANDS AT WALL SCREWS

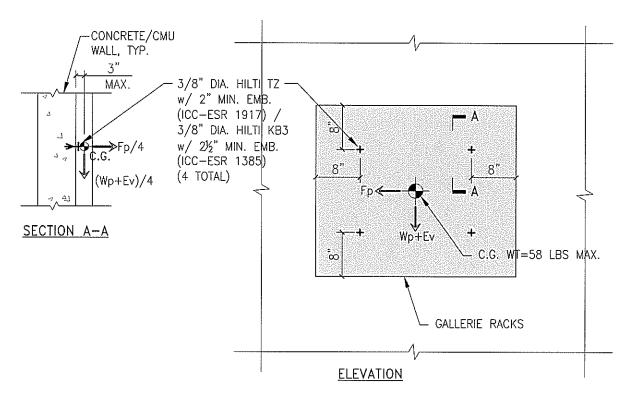
MI OUMON DEMINISTRATION IN THE CONCENTO		
CASE 1: EQ FORCE	PERPEND. TO WALL	
TENSION = 76.2 LBS	SHEAR = 23.1 LBS	
CASE 2: EQ FORCE PARALLEL TO WALL		
TENSION = 29.3 LBS	SHEAR = 70.8 LBS	





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MODEL 4042 - CONCRETE/CMU WALL ATTACHMENT



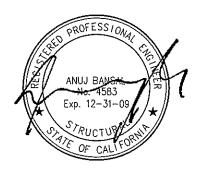
### MAXIMUM DEMANDS AT WALL ANCHORS

CASE 1: EQ FORCE PERPEND. TO WALL		
TENSION = 99.1 LBS	SHEAR = 30.0 LBS	
CASE 2: FO FORCE PARALLEL TO WALL		

SHEAR = 92.1 LBS

TENSION = 38.1 LBS

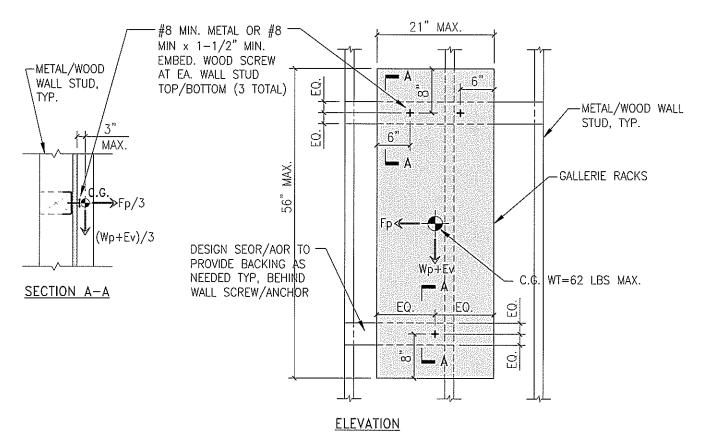
NOTES:
1. SEE PAGE 6 FOR INFO NOT SHOWN





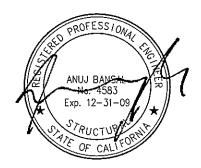
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### MODELS 4043, 4044 - METAL/WOOD STUDWALL ATTACHMENT



#### MAXIMUM DEMANDS AT WALL SCREWS

III OUNCIN PRINTINGO III TITIEE CONETIC		
CASE 1: EQ FORCE PERPEND. TO WALL		
TENSION = 99.2 LBS	SHEAR = 32.9 LBS	
CASE 2: EQ FORCE PARALLEL TO WALL		
TENSION = 55.1 LBS	SHEAR = 101.0 LBS	





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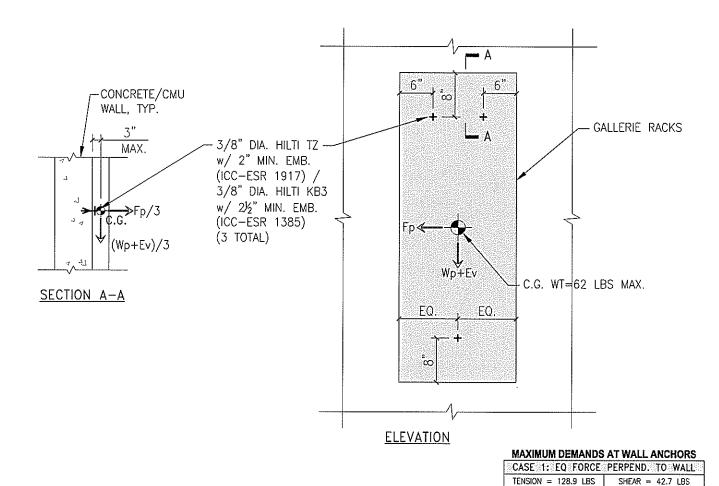
GALLERIE RACKS MODELS 4041, 4042, 4043, 4044 Project # A8621021.00

Date 10/24/2008

Designed By TY

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MODEL 4043, 4044 - CONCRETE/CMU WALL ATTACHMENT



NOTES:

1. SEE PAGE 8 FOR INFO NOT SHOWN



Joons Lh

July 8, 2009

Reviewed By: George Zhu

Date

CASE 2: EQ FORCE PARALLEL TO WALL

SHEAR = 131.3 LBS

TENSION = 71.7 LBS

