



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

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

OFFICE USE ONLY

APPLICATION #: OPM-0165-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

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

Manufacturer Information

Manufacturer: GCX Corporation

Manufacturer's Technical Representative: Rob Glaser

Mailing Address: 3875 Cypress Drive, Petaluma, CA. 94954-5635

Telephone: (800) 228-2555 Email: rglaser@gcx.com

Product Information

Product Name: GCX Wall Mount with M & VHM Arms

Product Type: Cantilever OPM-0165-13

Product Model Number: 13", 19", 25", 31", 37" & 49" Wall Channels w/M, VHM & VHM25 Arms

General Description: Wall Mounted Monitor and Keyboard Support

DATE: 02/03/2015

Applicant Information

Applicant Company Name: EASE Co.

Contact Person: Jonathan Roberson, S.E.

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA. 91709

Telephone: (909) 606-7622 Email: J.Roberson@EASECo.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: 11/13/14

Title: Principal Engineer Company Name: EASE Co.

"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: EASE Co.

Name: Jonathan Roberson, S.E.

California License Number: S4197

Mailing Address: 5877 Pine Ave. Suite 210, Chino Hills, CA. 91709

Telephone: 909-606-7667

Email: J.Roberson@EASECo.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 test 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: *William Staehlin* Date: 02/03/2015

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"

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
OSH-FD-700 (REV 1/24/13)



osHPD



**EQUIPMENT ANCHORAGE
& SEISMIC ENGINEERING**

5877 Pine Ave, Ste. 210
Chino Hills, CA. 91709
Phn: (909) 606-7622

Office of Statewide Health Planning and Development
PREAPPROVAL OF MANUFACTURER'S CERTIFICATION
OPM-0165-13

THIS PREAPPROVAL CONFORMS TO THE 2013 CALIFORNIA BUILDING CODE

MANUFACTURER: **GCX CORPORATION**
EQUIPMENT NAME: **GCX WALL MOUNT with M & VHM ARMS**

Sheet: 1 of 9
Date: 2/2/15

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2013 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2013 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2013 CALIFORNIA BUILDING CODE.
4. FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3, WHERE $S_{ds} = 2.5$, $a_p = 2.5$, $I_p = 1.5$, $R_p = 2.5$, $z/h \leq 1$.
5. THE DETAILS IN THIS PREAPPROVAL MAY BE USED AT ANY LOCATION IN THE STATE OF CALIFORNIA, WHERE SDS IS NOT GREATER THAN 2.5.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. SHEET METAL SCREWS SHALL BE TEKS SCREWS BY ITW BUILDDEX (ICC ESR-1976).
8. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
9. RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING
 - A. PROVIDE SUPPORTING STRUCTURE REQUIRED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS.
 - B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE DETAILS SHOWN IN THIS PREAPPROVAL. VERIFY THAT THE ACTUAL EQUIPMENT'S WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.
 - C. VERIFY THAT THE COMBINATION OF S_{ds} & z/h RESULT IN SEISMIC FORCES (E_h , E_v) THAT ARE NOT GREATER THAN THE VALUES ON THE DETAILS.
 - D. DESIGN BACKING BARS, STUDS, ETC. WHICH THE UNITS ARE ATTACHED TO AS NOTED ON THE DRAWINGS.



GCX CORPORATION

DES. **J. ROBERSON**

SHEET

2

JOB NO. **11-1441**

GCX WALL MOUNT with M & VHM ARMS

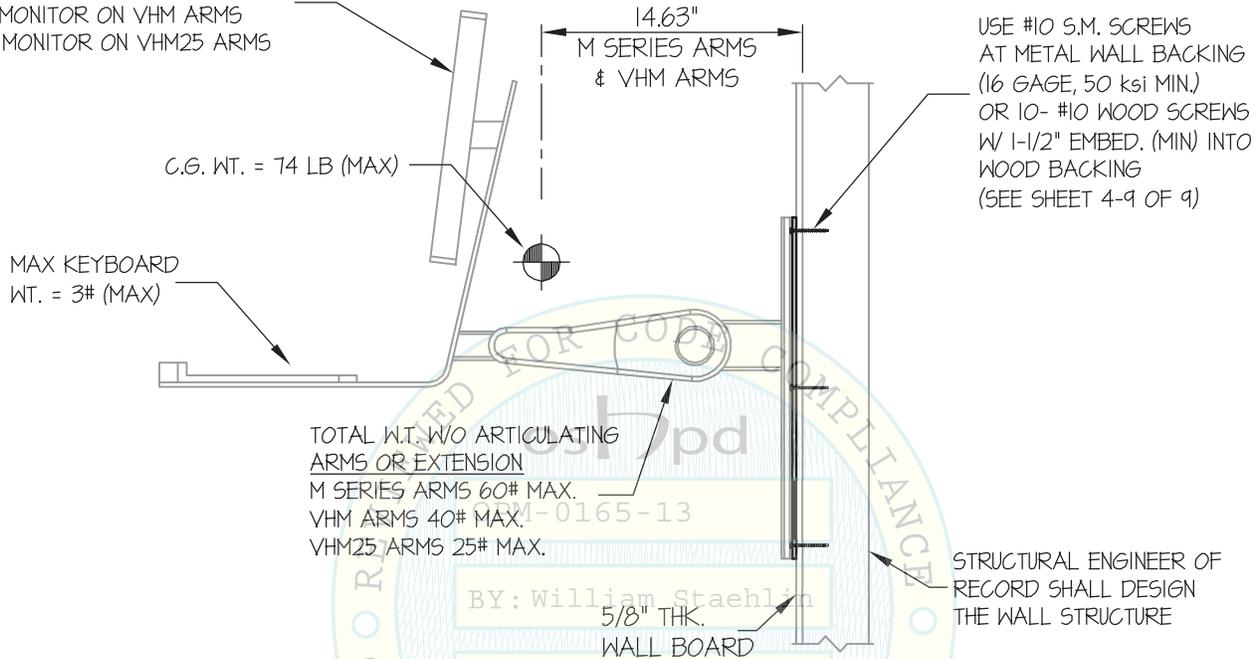
DATE **2/2/15**

OF **9** SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED

MAX MONITOR WEIGHT:
55 LB MONITOR ON M-SERIES ARMS
35 LB MONITOR ON VHM ARMS
20 LB MONITOR ON VHM25 ARMS



TOTAL W.T. W/O ARTICULATING ARMS OR EXTENSION
M SERIES ARMS 60# MAX.
VHM ARMS 40# MAX.
VHM25 ARMS 25# MAX.

USE #10 S.M. SCREWS AT METAL WALL BACKING (16 GAGE, 50 ksi MIN.) OR 10- #10 WOOD SCREWS W/ 1-1/2" EMBED. (MIN) INTO WOOD BACKING (SEE SHEET 4-9 OF 9)

STRUCTURAL ENGINEER OF RECORD SHALL DESIGN THE WALL STRUCTURE

STEEL STUD WALL SECTION (13" TRACK SHOWN)

NOTES:

- FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10 STRENGTH DESIGN IS USED. ($S_{Ds} = 2.5$, $a_p = 2.5$, $I_p = 1.5$, $R_p = 2.5$, $z/h \leq 1$)

HORIZONTAL FORCE (E_h) = $4.50 W_p$
VERTICAL FORCE (E_v) = $0.50 W_p$

- CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
- SEE GENERAL NOTES: SHEET 1



GCX CORPORATION

DES. J. ROBERSON

SHEET

3

JOB NO. 11-1441

GCX WALL MOUNT with M & VHM ARMS

DATE 2/2/15

OF 9 SHEETS

SEISMIC ANCHORAGE

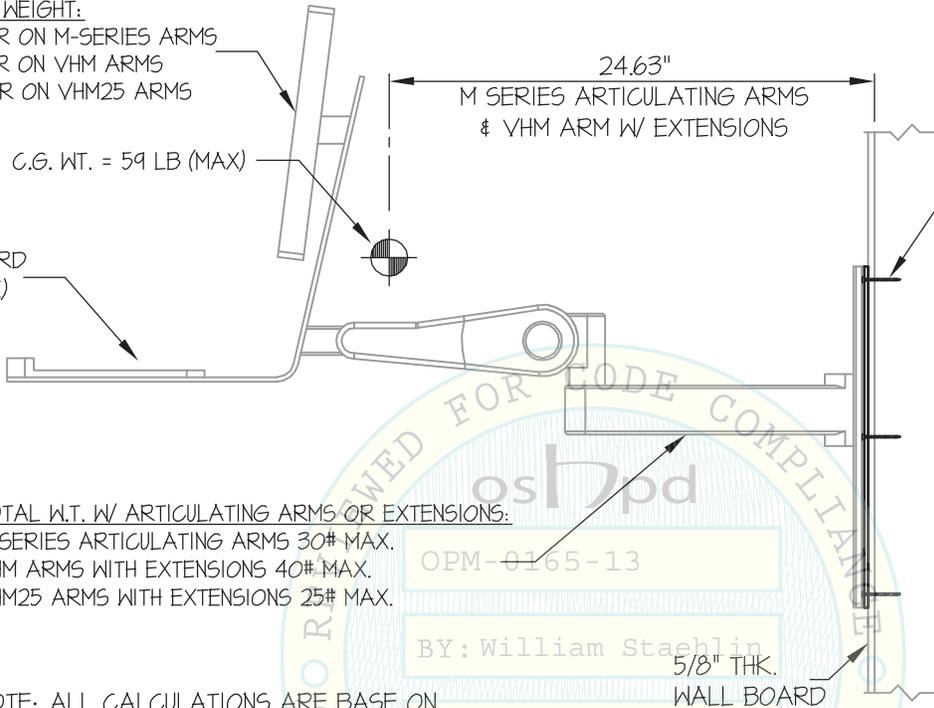
WALL MOUNTED

MAX MONITOR WEIGHT:

- 25 LB MONITOR ON M-SERIES ARMS
- 35 LB MONITOR ON VHM ARMS
- 20 LB MONITOR ON VHM25 ARMS

C.G. WT. = 59 LB (MAX)

MAX KEYBOARD
WT. = 3# (MAX)



USE #10 S.M. SCREWS
AT METAL WALL BACKING
(16 GAGE, 50 ksi MIN.)
OR 10- #10 WOOD SCREWS
W 1-1/2" EMBED. (MIN) INTO
WOOD BACKING
(SEE SHEET 4-9 OF 9)

TOTAL W.T. W/ ARTICULATING ARMS OR EXTENSIONS:

- M SERIES ARTICULATING ARMS 30# MAX.
- VHM ARMS WITH EXTENSIONS 40# MAX.
- VHM25 ARMS WITH EXTENSIONS 25# MAX.

NOTE: ALL CALCULATIONS ARE BASE ON
THIS CONFIGURATION

STRUCTURAL ENGINEER OF
RECORD SHALL DESIGN
THE WALL STRUCTURE

OPM-0165-13

BY: William Staehlin

DATE: 02/03/2015

STEEL STUD WALL SECTION

(13" TRACK SHOWN)



GCX CORPORATION

GCX WALL MOUNT with M & VHM ARMS

DES. **J. ROBERSON**

JOB NO. **11-1441**

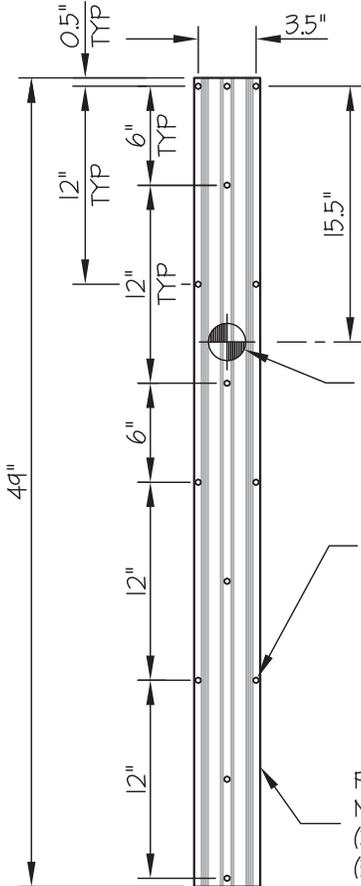
DATE **2/2/15**

SHEET

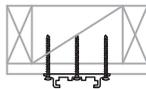
4

OF **9** SHEETS

SEISMIC ANCHORAGE



ELEVATION AT 49" TRACK



BLKG SECTION

VERTICAL 4 x 6 BLKG MIN
(DOUGLAS-FIR LARCH
NUMBER 2 MIN.)
(DESIGNED BY STRUCTURAL
ENGINEER OF RECORD)

WALL MOUNTED

USE 14- #10 X 4" FLAT HEAD
WOOD SCREWS TO
WOOD STUD
(PRE-DRILL PILOT HOLES)

5/8" THK.
WALL BOARD

NOTE:
MIN EDGE DISTANCE = 3/4"
MIN END DISTANCE = 2"

WOOD STUD WALL SECTION

FOR CODE COMPLIANCE
BY: William Staehlin
DATE: 06/22/2015

PRE-MANUFACTURED
MOUNTING BRACKET/ TRACK
(3/16" THK. 6061 ALLOY
(BY GCX CORPORATION)

T_u = 45 LB/SCREW (MAX)
V_u = 21 LB/SCREW (MAX)



GCX CORPORATION

GCX WALL MOUNT with M & VHM ARMS

DES. **J. ROBERSON**

JOB NO. **11-1441**

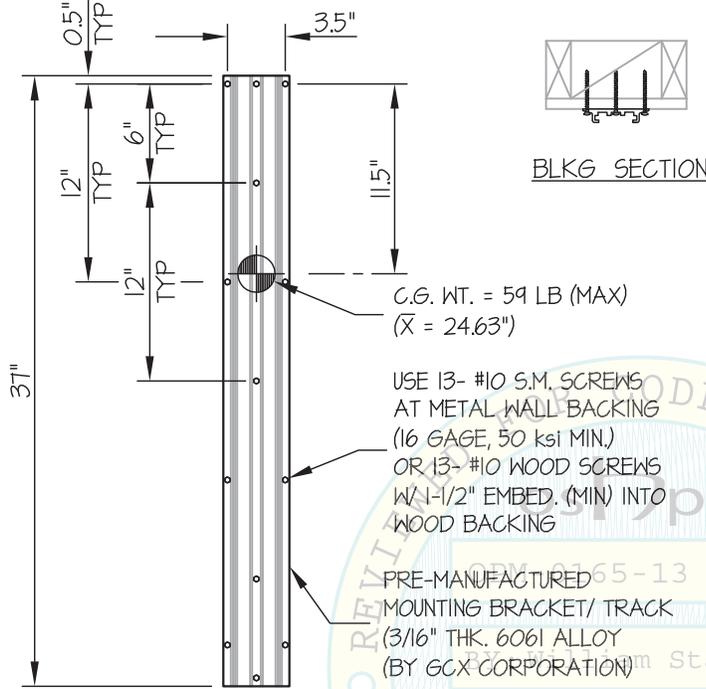
DATE **2/2/15**

SHEET

5

OF **9** SHEETS

SEISMIC ANCHORAGE



ELEVATION AT 37" TRACK

VERTICAL 4 x 6 BLKG MIN
MIN(DOUGLAS-FIR LARCH
NUMBER 2 MIN.)
(DESIGNED BY STRUCTURAL
ENGINEER OF RECORD)

WALL MOUNTED

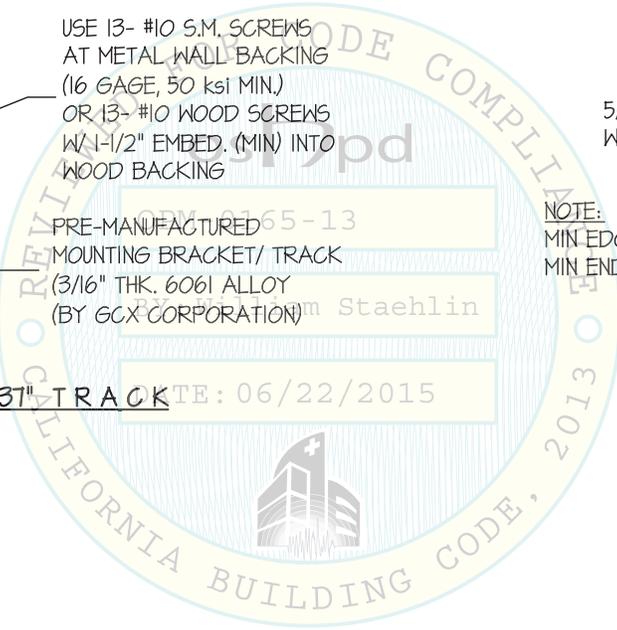
USE 13- #10 X 4" FLAT HEAD
WOOD SCREWS TO
WOOD STUD
(PRE-DRILL PILOT HOLES)

5/8" THK.
WALL BOARD

NOTE:
MIN EDGE DISTANCE = 3/4"
MIN END DISTANCE = 2"

WOOD STUD WALL SECTION

$T_u = 55 \text{ LB/SCREW (MAX)}$
 $V_u = 22 \text{ LB/SCREW (MAX)}$



GCX CORPORATION

GCX WALL MOUNT with M & VHM ARMS

DES. **J. ROBERSON**

JOB NO. **11-1441**

DATE **2/2/15**

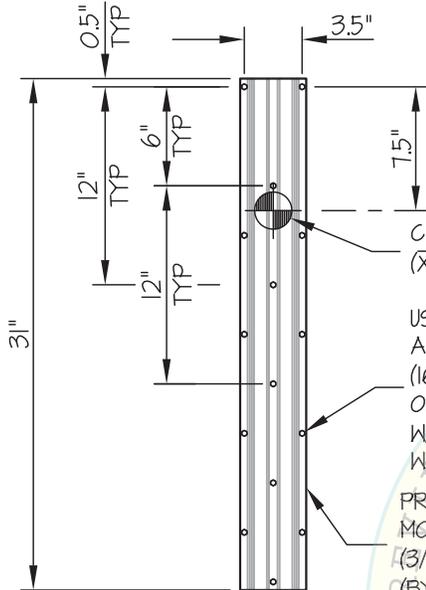
SHEET

6

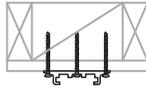
OF **9** SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED



ELEVATION AT 3" TRACK



BLKG SECTION

C.G. WT. = 59 LB (MAX)
(\bar{X} = 24.63")

USE 15- #10 S.M. SCREWS
AT METAL WALL BACKING
(16 GAGE, 50 ksi MIN.)
OR 15- #10 WOOD SCREWS
W/ 1-1/2" EMBED. (MIN) INTO
WOOD BACKING

PRE-MANUFACTURED
MOUNTING BRACKET/ TRACK
(3/16" THK. 6061 ALLOY
(BY GCX CORPORATION)

VERTICAL 4 x 6 BLKG MIN
(DOUGLAS-FIR LARCH
NUMBER 2 MIN.)
(DESIGNED BY STRUCTURAL
ENGINEER OF RECORD)

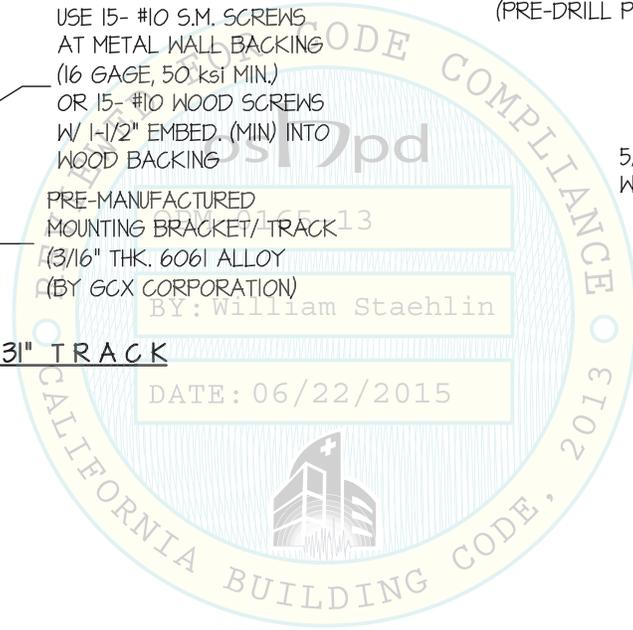
USE 15- #10 X 4" FLAT HEAD
WOOD SCREWS TO
WOOD STUD
(PRE-DRILL PILOT HOLES)

5/8" THK.
WALL BOARD

NOTE:
MIN EDGE DISTANCE = 3/4"
MIN END DISTANCE = 2"

WOOD STUD WALL SECTION

T_u = 60 LB/SCREW (MAX)
V_u = 19 LB/SCREW (MAX)



GCX CORPORATION

DES. **J. ROBERSON**

SHEET

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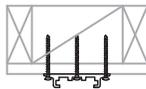
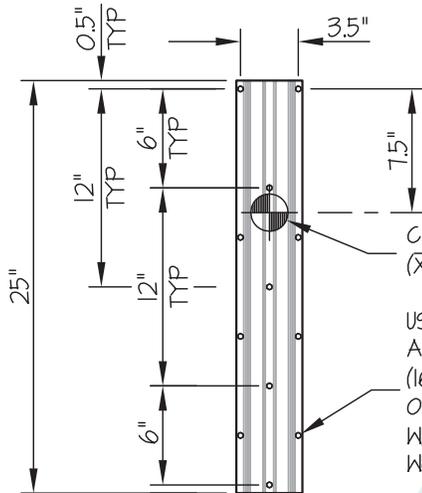
JOB NO. **11-1441**

GCX WALL MOUNT with M & VHM ARMS

DATE **2/2/15**

OF **9** SHEETS

SEISMIC ANCHORAGE



BLKG SECTION

C.G. WT. = 59 LB (MAX)
(\bar{X} = 24.63")

USE 12- #10 S.M. SCREWS
AT METAL WALL BACKING
(16 GAGE, 50 ksi-MIN.)
OR 12- #10 WOOD SCREWS
W/ 1-1/2" EMBED. (MIN) INTO
WOOD BACKING

PRE-MANUFACTURED
MOUNTING BRACKET/ TRACK- 13
(3/16" THK. 6061 ALLOY
(BY GCX CORPORATION)

ELEVATION AT 25" TRACK

VERTICAL 4 x 6 BLKG MIN
(DOUGLAS-FIR LARCH
NUMBER 2 MIN.)
(DESIGNED BY STRUCTURAL
ENGINEER OF RECORD)

WALL MOUNTED

USE 12- #10 X 4" FLAT HEAD
WOOD SCREWS TO
WOOD STUD
(PRE-DRILL PILOT HOLES)

5/8" THK.
WALL BOARD



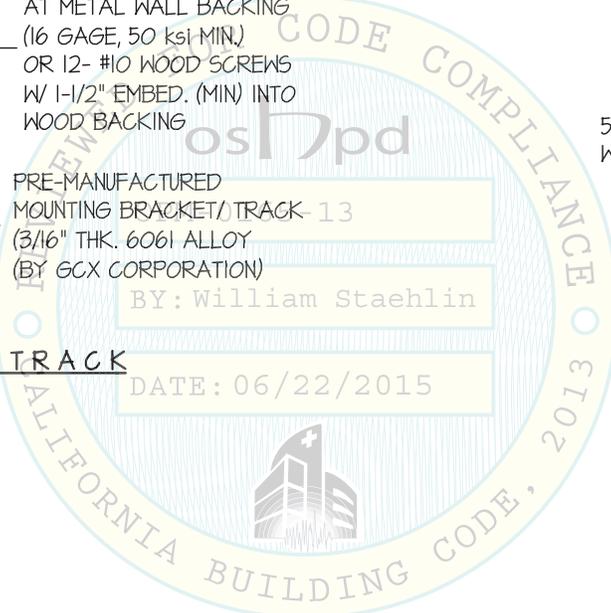
NOTE:

MIN EDGE DISTANCE = 3/4"
MIN END DISTANCE = 2"

WOOD STUD WALL SECTION

T_u = 74 LB/SCREW (MAX)

V_u = 24 LB/SCREW (MAX)



GCX CORPORATION

DES. **J. ROBERSON**

SHEET

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JOB NO. **11-1441**

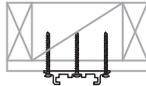
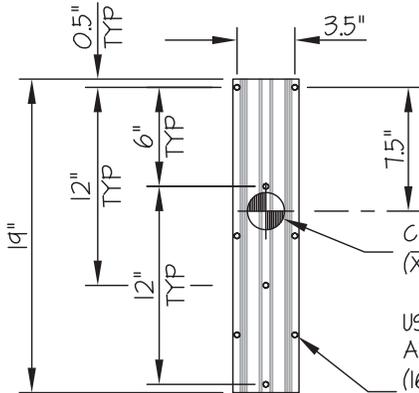
GCX WALL MOUNT with M & VHM ARMS

DATE **2/2/15**

OF **9** SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED



BLKG SECTION

VERTICAL 4 x 6 BLKG MIN
(DOUGLAS-FIR LARCH
NUMBER 2 MIN.)
(DESIGNED BY STRUCTURAL
ENGINEER OF RECORD)

C.G. WT. = 59 LB (MAX)
(\bar{X} = 24.63")

USE 9- #10 S.M. SCREWS
AT METAL WALL BACKING
(16 GAGE, 50 ksi MIN.)
OR 9- #10 WOOD SCREWS
W/ 1-1/2" EMBED. (MIN) INTO
WOOD BACKING

PRE-MANUFACTURED 165-13
MOUNTING BRACKET/ TRACK
(3/16" THK. 6061 ALLOY
(BY GCX CORPORATION))

USE 9- #10 X 4" FLAT HEAD
WOOD SCREWS TO
WOOD STUD
(PRE-DRILL PILOT HOLES)

5/8" THK.
WALL BOARD

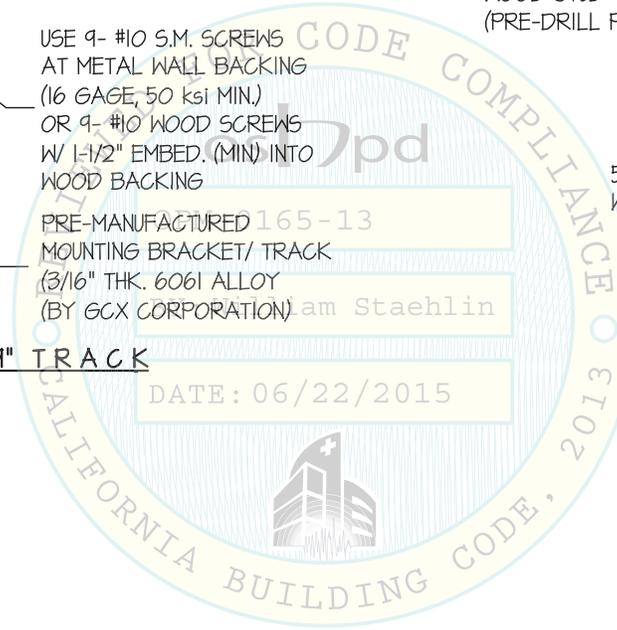
NOTE:
MIN EDGE DISTANCE = 3/4"
MIN END DISTANCE = 2"

ELEVATION AT 19" TRACK

WOOD STUD WALL SECTION

DATE: 06/22/2015

$T_u = 99$ LB/SCREW (MAX)
 $V_u = 32$ LB/SCREW (MAX)



GCX CORPORATION

GCX WALL MOUNT with M & VHM ARMS

DES. **J. ROBERSON**

JOB NO. **11-1441**

DATE **2/2/15**

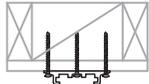
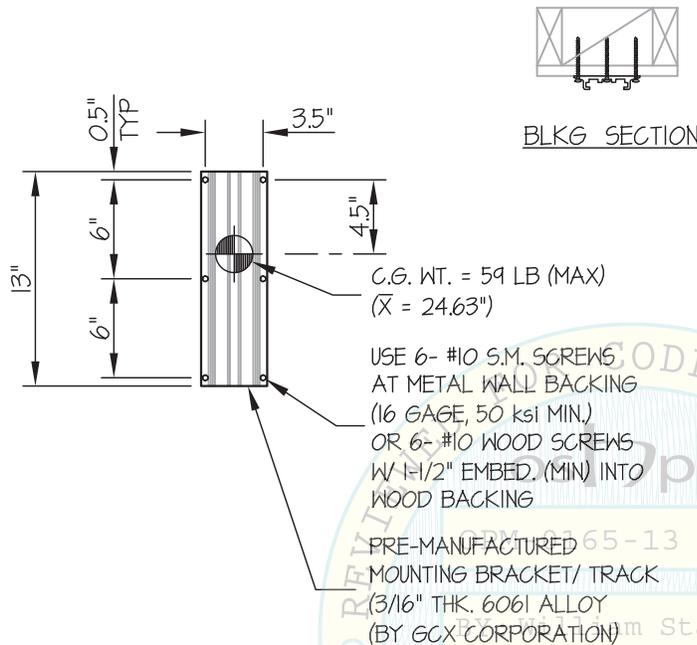
SHEET

9

OF **9** SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED



BLKG SECTION

VERTICAL 4 x 6 BLKG MIN (DOUGLAS-FIR LARCH NUMBER 2 MIN.) (DESIGNED BY STRUCTURAL ENGINEER OF RECORD)

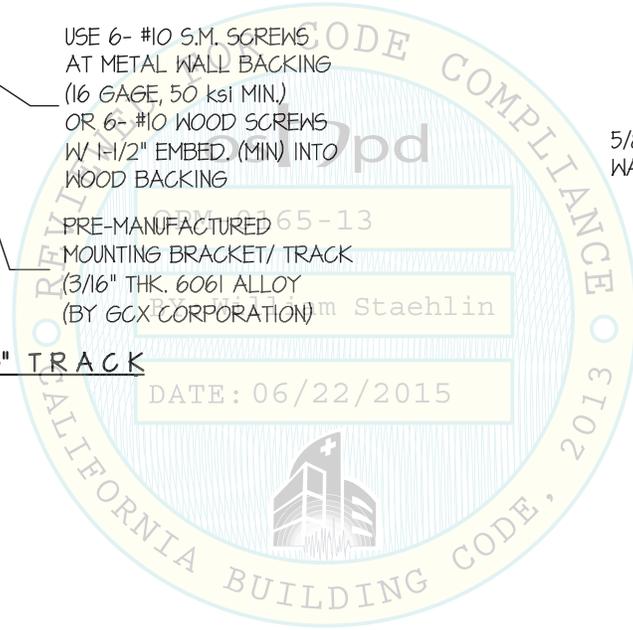
USE 6- #10 X 4" FLAT HEAD WOOD SCREWS TO WOOD STUD (PRE-DRILL PILOT HOLES)

5/8" THK. WALL BOARD

NOTE:
MIN EDGE DISTANCE = 3/4"
MIN END DISTANCE = 2"



WOOD STUD WALL SECTION



T_u = 148 LB/SCREW (MAX)
V_u = 48 LB/SCREW (MAX)

Jonathan Roberson
REGISTERED PROFESSIONAL ENGINEER
No. 4197
EXP. 6-30-2016
2/2/15
STRUCTURAL
STATE OF CALIFORNIA