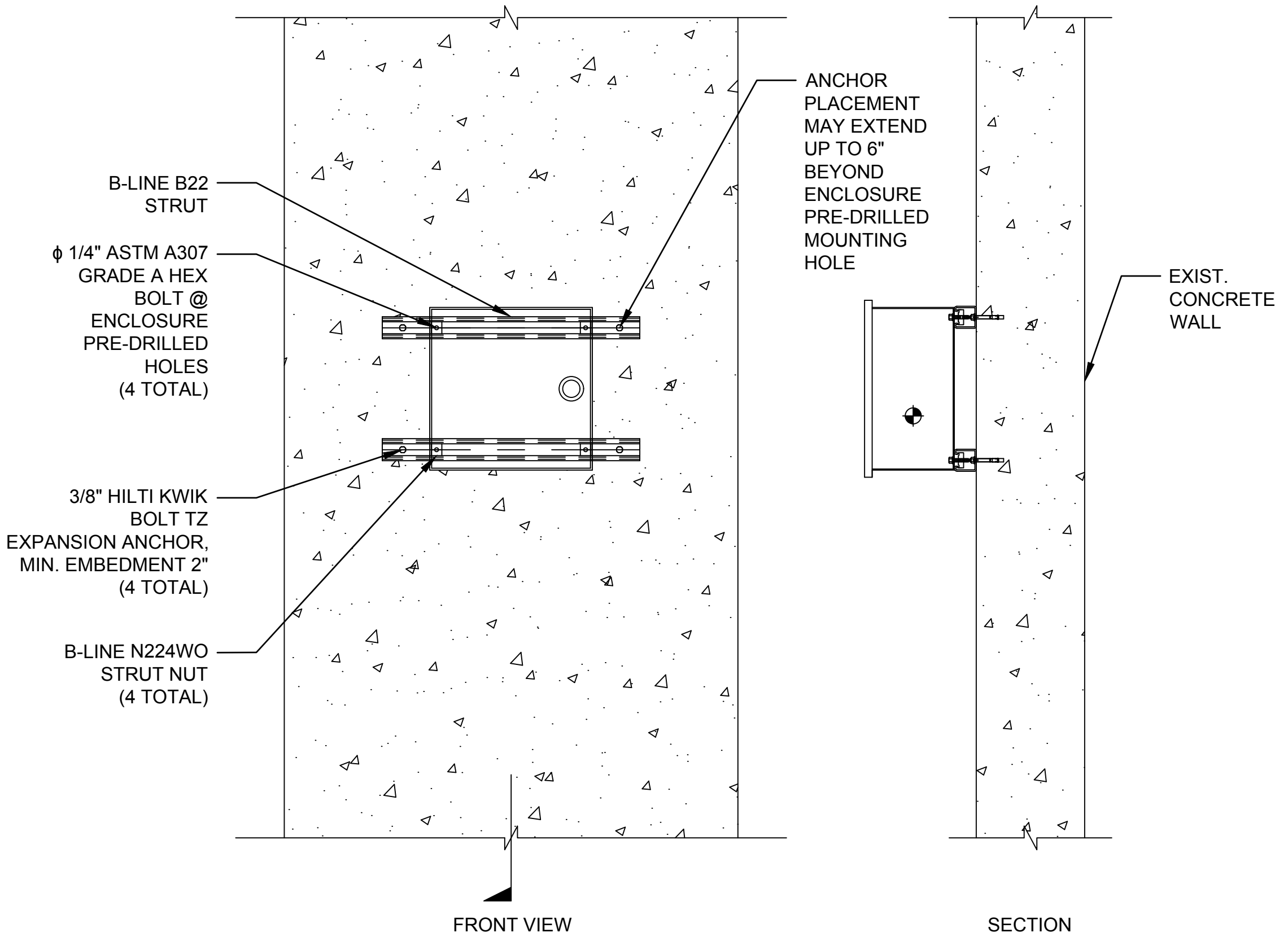
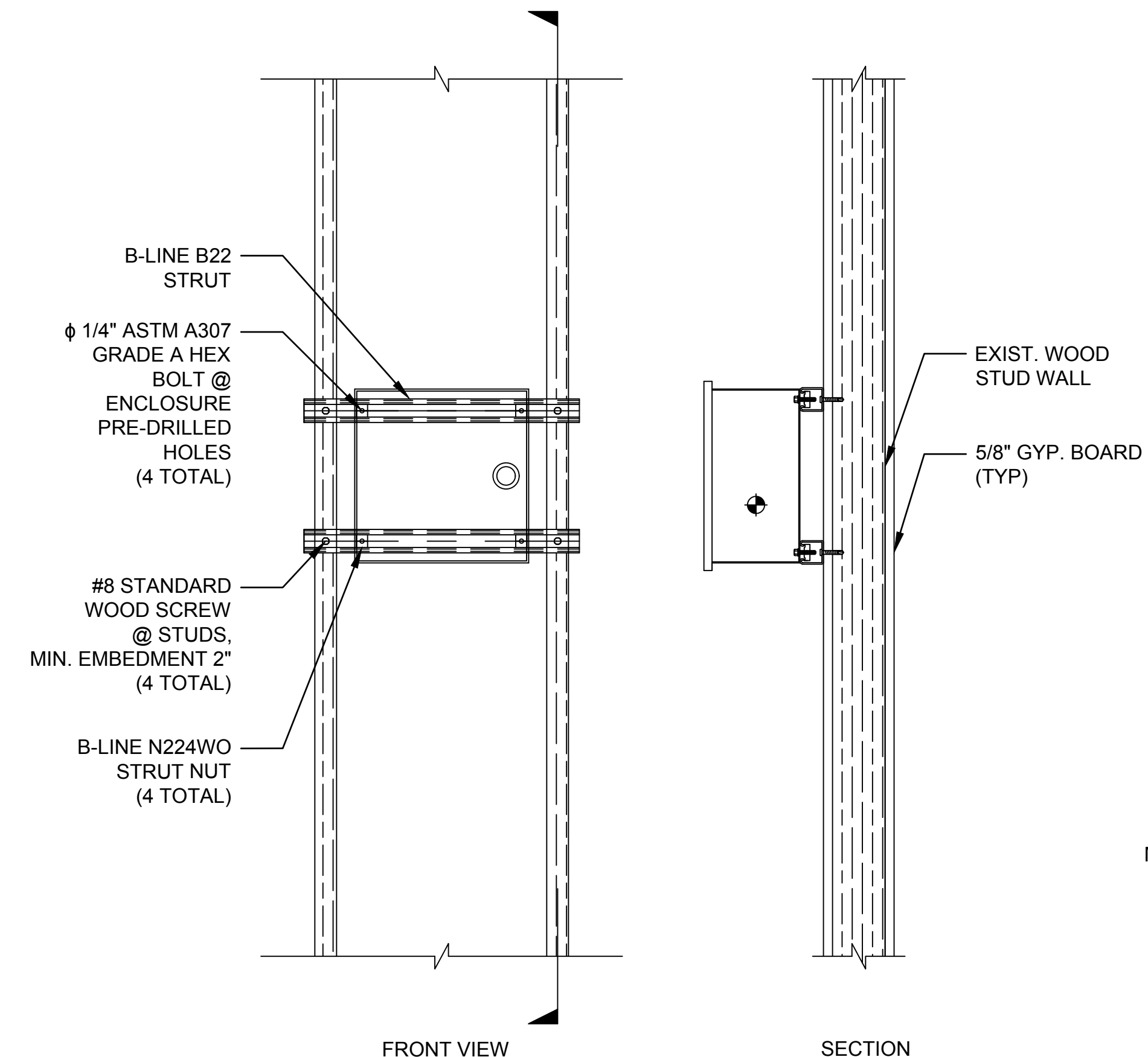


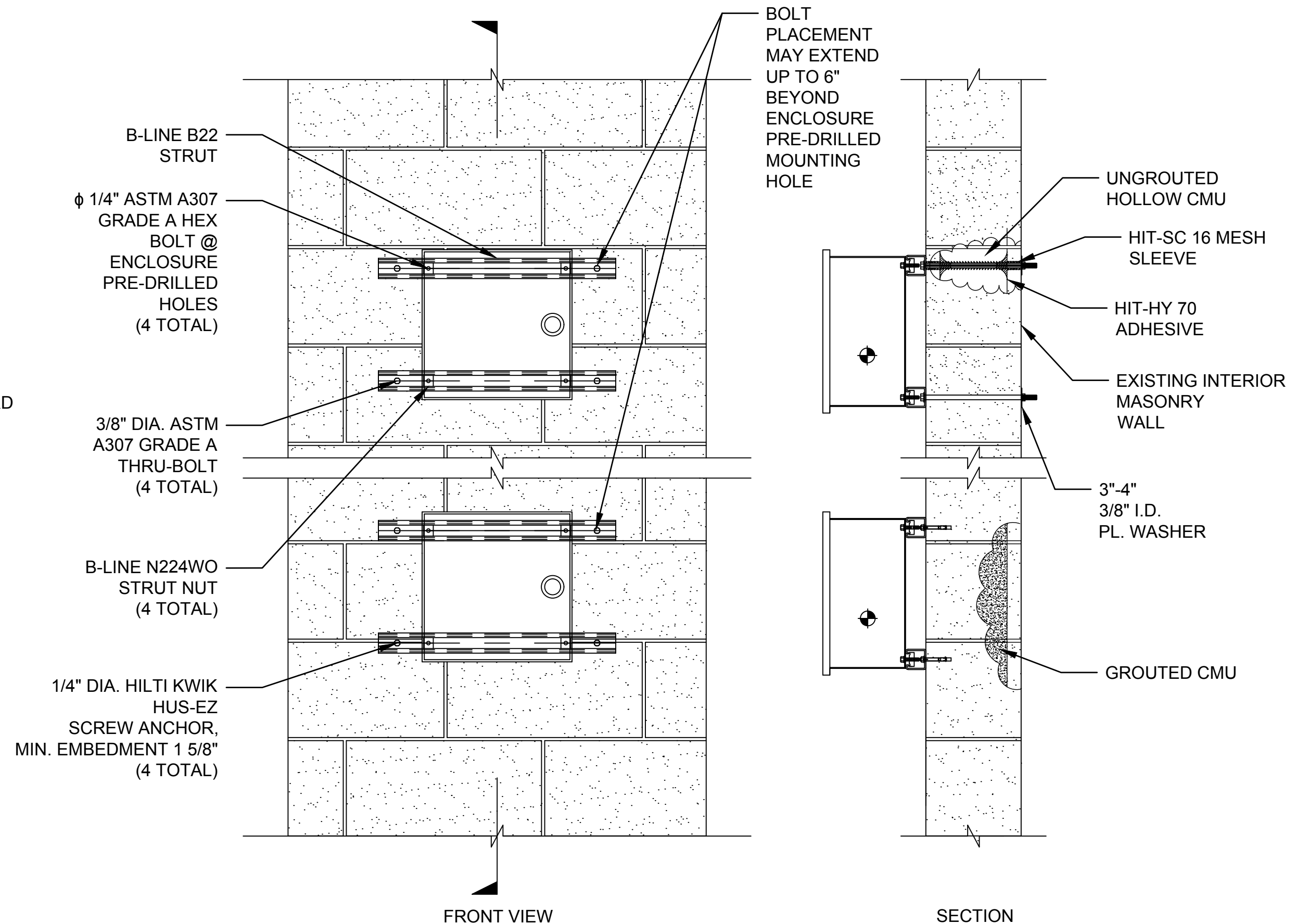
CFS STUD WALL DETAIL
 SCALE: 1 1/2" = 1'-0"
 4" 0 6" 1'
 1 1/2"=1'-0"



CONCRETE WALL DETAIL
 SCALE: 1 1/2" = 1'-0"
 4" 0 6" 1'
 1 1/2"=1'-0"



WOOD STUD WALL DETAIL
 SCALE: 1 1/2" = 1'-0"
 4" 0 6" 1'
 1 1/2"=1'-0"



MASONRY WALL DETAIL
 SCALE: 1 1/2" = 1'-0"
 4" 0 6" 1'
 1 1/2"=1'-0"

GENERAL NOTES:

- IF THIS SHEET IS NOT 24"x36," USE GRAPHICAL SCALE ACCORDINGLY.
- THIS SHEET IS FOR USE WITH EQUIPMENT LESS THAN 100 LBS.
- CFS STUDS**
EACH SELF-DRILLING SCREW MUST PENETRATE EXISTING STUD WITH A MIN. OF THREE THREADS PROTRUDING PAST THE BACK SIDE OF THE SUPPORTING STEEL.
- WOOD STUDS**
EACH WOOD SCREW MUST PENETRATE AT LEAST 1.33" INTO STUD.
- CONCRETE WALL**
POST-INSTALLED ANCHORS SHALL NOT DAMAGE EXISTING CONCRETE REBAR.
- MASONRY**
PRE-DRILL MASONRY WITH A 7/16" DIA. HOLE FOR THRU-BOLT.
THRU-BOLTS AND SCREW ANCHORS SHALL NOT DAMAGE EXISTING MASONRY REINFORCEMENT.

NOTES FOR EOR:

- (DO NOT INCLUDE ON CONSTRUCTION DRAWINGS)
- ALL WALL TYPES**
- MIN. REQUIRED HEX BOLT SIZE IS ϕ 1/4". LARGER DIAMETERS ARE PERMISSIBLE TO ACCOUNT FOR LARGER MOUNTING HOLE DIAMETER. EMBEDMENT DEPTHS, FASTENER DIAMETERS, AND NUMBER OF FASTENERS ARE MINIMUMS AND MAY BE INCREASED.
- WOOD STUD**
- MIN. REQUIRED SCREW PENETRATION INTO STUD IS 1.33".
- CONCRETE WALL**
- MIN. REQUIRED EMBEDMENT DEPTH IS 2".
 - MIN. REQUIRED SPACING BETWEEN ANCHOR IS 8".
 - MIN. REQUIRED WALL THICKNESS IS 4".
- MASONRY WALL**
- THRU-BOLTING REQUIRED UNLESS MASONRY IS PROVEN TO BE UNCRACKED UNDER SERVICE LOADS.
 - THRU-BOLT WASHER:

WASHER O.D. (in.)	ENCL. WT. (LBS.)
4	≥ 145 LBS
3	< 145 LBS
 - MIN. REQUIRED THRU-BOLT SPACING IS 2.5".
 - POST-INSTALLED ANCHOR IN UNCRACKED MASONRY CONDITION.
 - MIN. REQUIRED EMBEDMENT FOR SCREW ANCHORS IS 1-5/8".
 - MIN. REQUIRED SPACING BETWEEN SCREW ANCHORS IS 4". SCREW ANCHORS CAN BE STAGGERED TO SATISFY THIS REQUIREMENT.

DRAWING DEVELOPED FOR ML-3/ML-4 PROJECTS. FOR ML-1/ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACKAGE)

1	12/19/17	UNCLASS	DY	UPDATED TO COMPLY W/ ESM CH. 5 REV. 10 & CAD STDS MANUAL REV 5. CHANGED SHEET # FROM S-5001.	BW	BW	GP	GP	TO
NO	DATE	CLASS REV	DC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP

ENGINEERING STANDARDS

STRUCTURAL

WALL-MOUNTED EQUIPMENT DETAILS SMALL

TA-XX BLDG XXXX

SUBMITTED DISCIPLINE POC: J.WEAMER APPROVED FOR RELEASE STANDARDS MANAGER: T.ORUCH

Los Alamos NATIONAL LABORATORY PO Box 1663 Los Alamos, New Mexico 87545

D.C.: UNCLASSIFIED REVIEWER: E.SEAWALT DATE: 06-02-14

PROJECT ID DRAWING NO: **CHAPTER 5 ST-F1033-3** REV: **1**

DATE: 06-04-14

SHEET **3** OF **4**