COMPONENT SELECTION SCHEDULES

EARTHBOUND THREADED ROD CAPACITIES (IBC 2006–09)

ROD SIZE	ROD SIZE (INCHES)	ALLOWABLE TENSION LOAD IBC 2006	ROD REMARKS	SLACKJACK SIZE
R4	1/2" DIA.	4,470 LBS	ASTM A 36 (UNC)	SJA 214, 224, 414, 424
R5	5/8" DIA.	7,120 LBS	ASTM A 36 (UNC)	SJA 215, 225, 415, 425
R6	3/4" DIA.	10,540 LBS	ASTM A 36 (UNC)	SJA 216, 226, 416, 426
R7	7/8" DIA.	14,540 LBS	ASTM A 36 (UNC)	SJA 217, 227, 417, 427
R8	1" DIA.	19,080 LBS	ASTM A 36 (UNC)	SJA 218, 228, 418, 428
R9	1 1/8" DIA.	24,040 LBS	ASTM A 36 (UNC)	SJA 219, 229, 419, 429
R10	1 1/4" DIA.	30,530 LBS	ASTM A 36 (UNC)	SJA 2110, 2210, 4110, 4210, SJS 4110, 4210
R12	1 1/2" DIA.	44,270 LBS	ASTM A 36 (UNC)	SJS 4112, 4212
R14	1 3/4" DIA.	59,830 LBS	ASTM A 36 (UNC)	-----
R4HS	1/2" DIA.	9,310 LBS	ASTM A193 B7 (UNC)	SJA 214, 224, 414, 424
R5HS	5/8" DIA.	14,830 LBS	ASTM A193 B7 (UNC)	SJA 215, 225, 415, 425
R6HS	3/4" DIA.	21,950 LBS	ASTM A193 B7 (UNC)	SJA 216, 226, 416, 426
R7HS	7/8" DIA.	30,300 LBS	ASTM A193 B7 (UNC)	SJA 217, 227, 417, 427
R8HS	1" DIA.	39,750 LBS	ASTM A193 B7 (UNC)	SJA 218, 228, 418, 428
R9HS	1 1/8" DIA.	50,090 LBS	ASTM A193 B7 (UNC)	SJA 219, 229, 419, 429
R10HS	1 1/4" DIA.	63,600 LBS	ASTM A193 B7 (UNC)	SJA 2110, 2210, 4110, 4210, SJS 4110, 4210
R12HS	1 1/2" DIA.	92,220 LBS	ASTM A193 B7 (UNC)	SJS 4112, 4212
R14HS	1 3/4" DIA.	124,650 LBS	ASTM A193 B7 (UNC)	-----

EARTHBOUND BEARING PLATE CAPACITIES

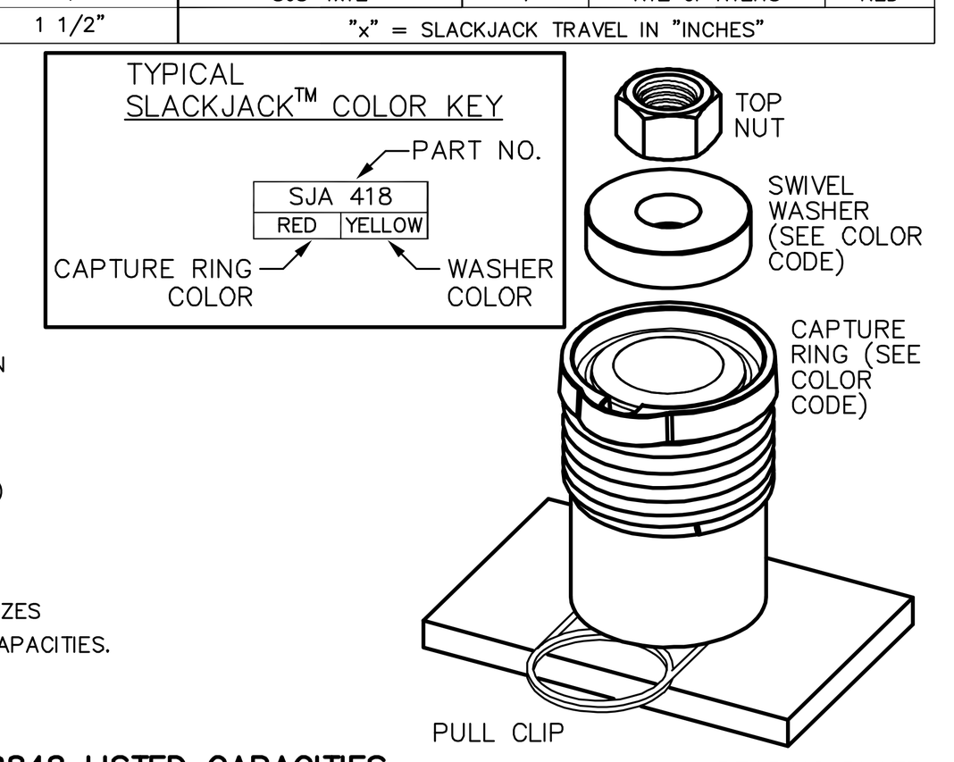
PLATE SIZE	DIFFERENTIAL LOAD	COLOR CODE	PLATE DIMENSIONS (INCHES) WIDTH	LENGTH	THICK.
P4	4,000 LBS	ORANGE	3"	3"	1/4"
P8	8,000 LBS	BLACK	3-1/4"	5"	1/4"
P10	10,000 LBS	BLUE	3-1/4"	5"	3/8"
P12	12,000 LBS	GRAY	3-1/4"	6"	5/8"
P14	14,000 LBS	RED	3-1/4"	7"	3/4"
P18	18,000 LBS	YELLOW	3-1/2"	9"	1"
P20	20,000 LBS	GREEN	3-1/2"	10"	1"
P22	22,000 LBS	WHITE	3-1/2"	11"	1 1/4"
P24	24,000 LBS	GOLD	3-1/2"	11"	1 1/2"

SJA ROD SIZE CODES

PART NO.	ROD DIAMETER	ROD SIZE	WASHER COLOR
SJA 2x4 or 4x4	1/2"	R4	PURPLE
SJA 2x5 or 4x5	5/8"	R5	BLACK
SJA 2x6 or 4x6	3/4"	R6 or R6HS	GRAY
SJA 2x7 or 4x7	7/8"	R7 or R7HS	BLUE
SJA 2x8 or 4x8	1"	R8 or R8HS	YELLOW
SJA 2x9 or 4x9	1 1/8"	R9 or R9HS	WHITE
SJA 2x10, 4x10, SJS 4x10	1 1/4"	R10 or R10HS	GREEN
SJS 4x12	1 1/2"	R12 or R12HS	RED
"x" = SLACKJACK TRAVEL IN "INCHES"			

NOTES:

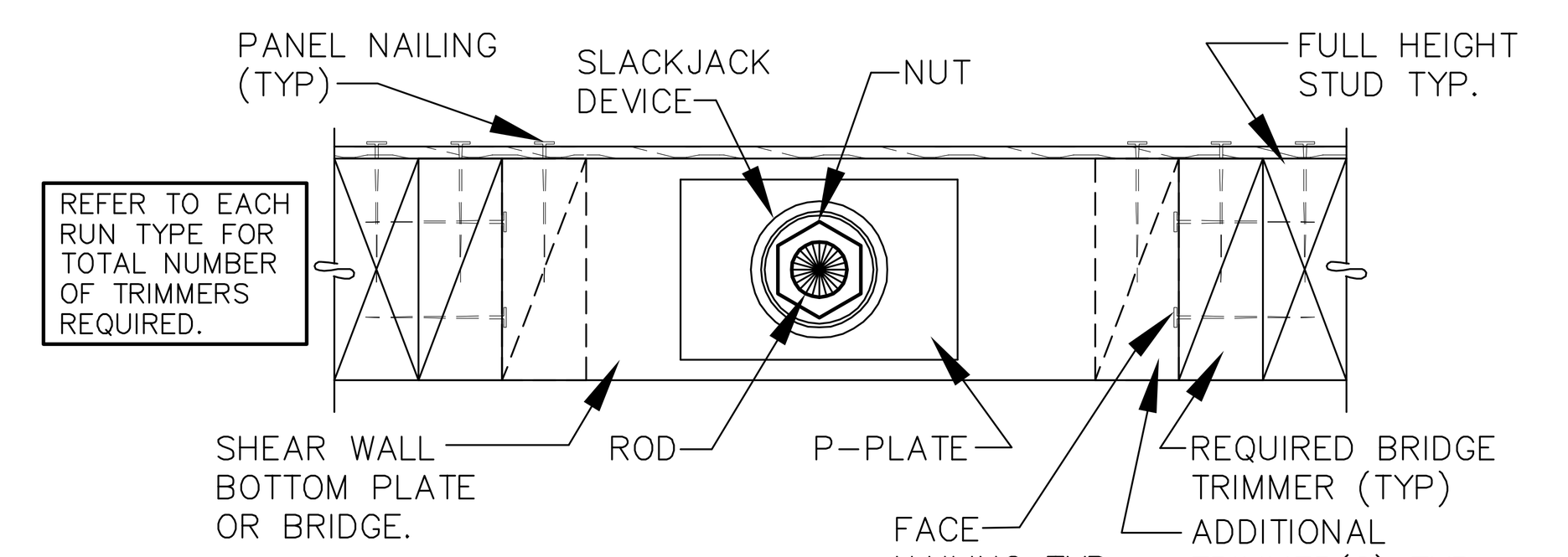
1. TENSION LOAD WAS CALCULATED FROM THE FOLLOWING EQUATION:
   A. A36 /A 307 Threaded Rod Capacities are F'u = 60,000 psi. UNC thread pitch HS Rods are based on ASTM A193 B7, F'u = 125,000 Ksi
   B. The IBC 2006 column is calculated in accordance to AISC 13th Edition.
2. PLATE STEEL SHALL BE ASTM A36: F'u = 60,000 PSI.
3. SUBSTITUTIONS OF DESIGNATED BEARING PLATE SHALL NOT BE PERMITTED, OBTAIN WRITTEN APPROVAL FROM THE ENGINEER.
4. SLACKJACK SELECTION NOTES: THE SIZES SHOWN ABOVE ARE FOR BOTH ONE AND TWO INCH TRAVEL ("SJA 4xy") (x = TRAVEL HEIGHT IN INCHES, y = ROD SIZE). TWO INCH TRAVEL SLACKJACKS ARE REQUIRED ON FOURTH WOOD FRAME LEVELS AND HIGHER.
5. THIS TABLE IS FOR REFERENCE OF FULL PRODUCT LINE, SOME ROD AND PLATE SIZES MAY NOT BE IN USE. THE ENGINEER OF RECORD SHALL REVIEW AND APPROVE CAPACITIES.



SLACKJACK™– ICC ESR-2848 LISTED CAPACITIES
COLOR CODE AND PART CROSS REFERENCE

SLACKJACK PART NO.	THREADED ROD DIAMETER	DIFFERENTIAL CAPACITY	TRAVEL COMPENSATION AMOUNT	CAPTURE RING COLOR	SWIVEL WASHER COLOR	SLACKJACK PART NO.	THREADED ROD DIAMETER	DIFFERENTIAL CAPACITY	TRAVEL COMPENSATION AMOUNT	CAPTURE RING COLOR	SWIVEL WASHER COLOR
SJA 214	1/2"	7,360 LBS	1-INCH	BLUE	PURPLE	SJA 224	1/2"	7,730 LBS	2-INCH	YELLOW	PURPLE
SJA 215	5/8"	7,360 LBS	1-INCH	BLUE	BLACK	SJA 225	5/8"	7,730 LBS	2-INCH	YELLOW	BLACK
SJA 216	3/4"	7,360 LBS	1-INCH	BLUE	GRAY	SJA 226	3/4"	7,730 LBS	2-INCH	YELLOW	GRAY
SJA 217	7/8"	7,360 LBS	1-INCH	BLUE	BLUE	SJA 227	7/8"	7,730 LBS	2-INCH	YELLOW	BLUE
SJA 218	1"	7,360 LBS	1-INCH	BLUE	YELLOW	SJA 228	1"	7,730 LBS	2-INCH	YELLOW	YELLOW
SJA 219	1 1/8"	7,360 LBS	1-INCH	BLUE	WHITE	SJA 229	1 1/8"	7,730 LBS	2-INCH	YELLOW	WHITE
SJA 2110	1 1/4"	7,360 LBS	1-INCH	BLUE	GREEN	SJA 2210	1 1/4"	7,730 LBS	2-INCH	YELLOW	GREEN
SJA 414	1/2"	14,000 LBS	1-INCH	RED	PURPLE	SJA 424	1/2"	14,000 LBS	2-INCH	GREEN	PURPLE
SJA 415	5/8"	14,000 LBS	1-INCH	RED	BLACK	SJA 425	5/8"	14,000 LBS	2-INCH	GREEN	BLACK
SJA 416	3/4"	14,000 LBS	1-INCH	RED	GRAY	SJA 426	3/4"	14,000 LBS	2-INCH	GREEN	GRAY
SJA 417	7/8"	14,000 LBS	1-INCH	RED	BLUE	SJA 427	7/8"	14,000 LBS	2-INCH	GREEN	BLUE
SJA 418	1"	14,000 LBS	1-INCH	RED	YELLOW	SJA 428	1"	14,000 LBS	2-INCH	GREEN	YELLOW
SJA 419	1 1/8"	14,000 LBS	1-INCH	RED	WHITE	SJA 429	1 1/8"	14,000 LBS	2-INCH	GREEN	WHITE
SJA 4110	1 1/4"	14,000 LBS	1-INCH	RED	GREEN	SJA 4210	1 1/4"	14,000 LBS	2-INCH	GREEN	GREEN
SJT 414	1/2"	9,000 LBS	1-INCH	ORANGE	PURPLE	SJA 614	1/2"	20,340 LBS	1-INCH	TAN	PURPLE
SJT 415	5/8"	9,000 LBS	1-INCH	ORANGE	BLACK	SJA 615	5/8"	20,340 LBS	1-INCH	TAN	BLACK
SJT 416	3/4"	9,000 LBS	1-INCH	ORANGE	GRAY	SJA 616	3/4"	20,340 LBS	1-INCH	TAN	GRAY
SJT 417	7/8"	9,000 LBS	1-INCH	ORANGE	BLUE	SJA 617	7/8"	20,340 LBS	1-INCH	TAN	BLUE
SJT 418	1"	9,000 LBS	1-INCH	ORANGE	YELLOW	SJA 618	1"	20,340 LBS	1-INCH	TAN	YELLOW
SJT 419	1 1/8"	9,000 LBS	1-INCH	ORANGE	WHITE	SJA 619	1 1/8"	20,340 LBS	1-INCH	TAN	WHITE
SJT 4110	1 1/4"	9,000 LBS	1-INCH	ORANGE	GREEN	SJA 4110	1 1/4"	20,340 LBS	1-INCH	TAN	GREEN
SJS 4110	1 1/4"	22,000 LBS	1-INCH	BLUE	GREEN	SJS 4210	1 1/4"	22,000 LBS	2-INCH	YELLOW	GREEN
SJS 4112	1 1/2"	22,000 LBS	1-INCH	BLUE	RED	SJS 4212	1 1/2"	22,000 LBS	2-INCH	YELLOW	RED

SLACKJACK™ COLOR CODE TABLE
TRAVEL HEIGHT AND ROD SIZE COORDINATION



TYP. P- PLATE ORIENTATION
& SAMPLE BRIDGE TRIMMER NAILING DETAIL
SCALE: NONE

COLLECTOR STUD CAPACITY SCHEDULES

COLLECTOR STUD CAPACITIES FOR DOUG FIR STUDS ON DOUG FIR PLATES

TOTAL STUDS REQUIRED QTY.	PLAN VIEW	9'-0" CAPACITY ** 2x4 STUDS	2x6 STUDS	3x4 STUDS	4x4 POSTS	4x6 POSTS	4x8 POSTS	4'-6"/6'-0" CAPACITY BRIDGE TRIMMERS ONLY NO. OF BRIDGE TRIMMERS	2x4s	2x6s
SINGLE CAPACITY:		2,338#	5,156#	3,896#	6,391#	10,015#	13,161#		3,281#	5,156#
2				7,793#	12,781#	20,030#	26,322#	2*	6,563#	10,313#
3		7,013#	15,469#	11,689#	19,172#	30,045#	39,484#			
4		9,351#	20,625#	15,585#	25,563#	40,059#	52,645#	4*	13,125#	20,625#
5		11,689#	25,781#	19,482#	31,953#	50,074#	65,806#			
6		14,027#	30,938#	23,378#	38,344#	60,089#	78,967#	6*	19,688#	30,938#
7		16,365#	36,094#	27,274#	44,735#	70,104#	92,128#			
8		18,702#	41,250#	31,171#	51,125#	80,119#	105,289#	8*	26,250#	41,250#
9		21,040#	46,406#	35,067#	57,516#	90,134#	118,451#			
10		23,378#	51,563#	38,963#	63,906#	100,149#	131,612#			

NOTES:
1) STUDS SHOWN ARE THE MINIMUM COMPRESSION MEMBERS REQUIRED FOR THE EARTHBOUND SYSTEM.
2) DOUG FIR CALCULATION NOTES: (BASED ON 2005 NDS)
2x4s, 2x6s, 3x4s (STUD GRADE): F'c PARALLEL = 850 PSI
4x4s AND LARGER (NO. 2 GRADE): F'c PARALLEL = 1350 PSI
F'c PERPENDICULAR = 625 PSI FOR DOUG FIR PLATES.
3) * DENOTES NO. OF BRIDGE TRIMMERS UNDER COMPRESSION BRIDGE.
4) ** DENOTES THAT FINAL POST HEIGHT SUBTRACTS 4 1/2" FOR 2x TOP PLATES AND 2x BOTTOM PLATE.

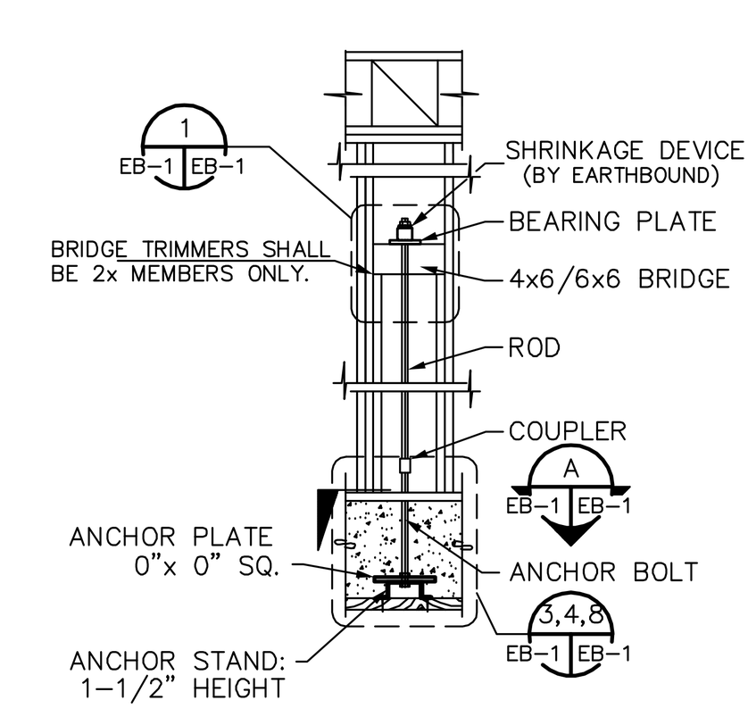
ROD HOLE SCHEDULE THROUGH TOP/BOTTOM PLATES AND BRIDGES

ROD SIZE		MIN HOLE SIZE	MAX HOLE SIZE
R4	1/2"ø	1"ø	1-1/8"ø
R5	5/8"ø	1"ø	1-1/8"ø
R6	3/4"ø	1"ø	1-1/8"ø
R7	7/8"ø	1-1/8"ø	1-1/4"ø
R8	1"ø	1-1/4"ø	1-3/8"ø
R9	1-1/8"ø	1-3/8"ø	* 1-1/2"ø
R10	1-1/4"ø	* 1-1/2"ø	* 1-5/8"ø

* HOLE SIZES INTENDED FOR 6" WALL TYPES ONLY. ENGINEER OF RECORD SHALL APPROVE THE USE OF THESE HOLE SIZES FOR 4" WALL TYPES.

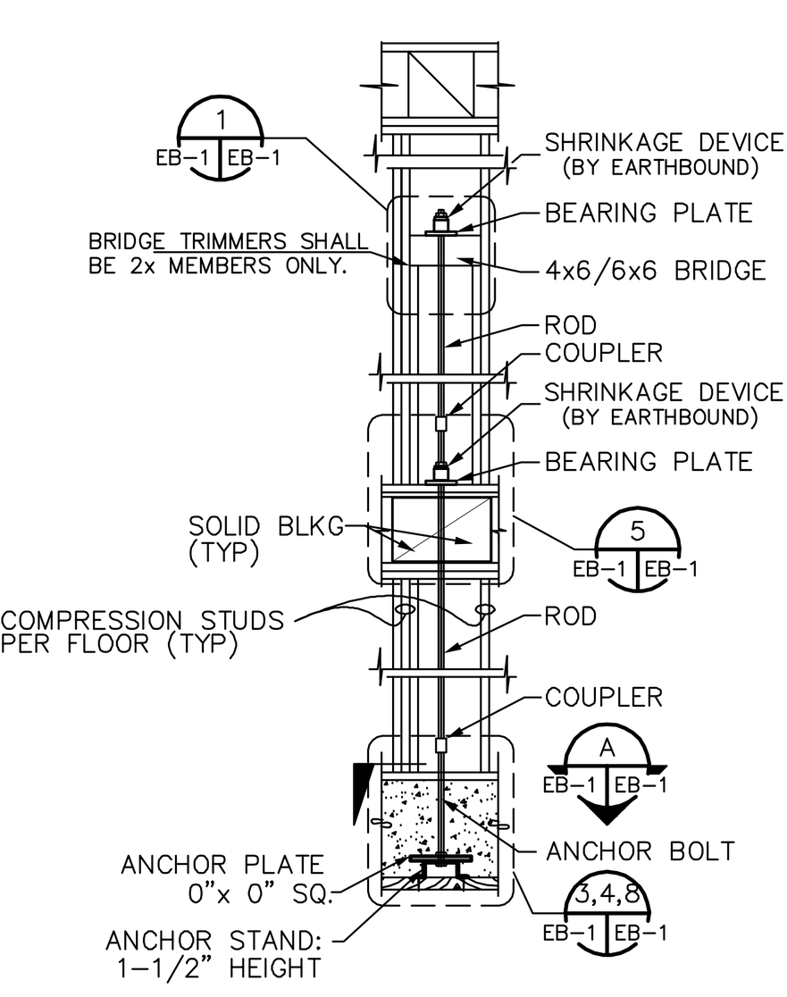
RUN TYPE XX

WOOD FLOOR LEVEL	UPLIFT TENSION LOADS	CALCULATED DIFFERENTIAL LOADS	COLLECTED DIFFERENTIAL LOADS	WOOD COMPRESSION DOWNLOAD
5th	-----	-----	-----	-----
4th	-----	-----	-----	-----
3rd	-----	-----	-----	-----
2nd	-----	-----	-----	-----
1st	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS



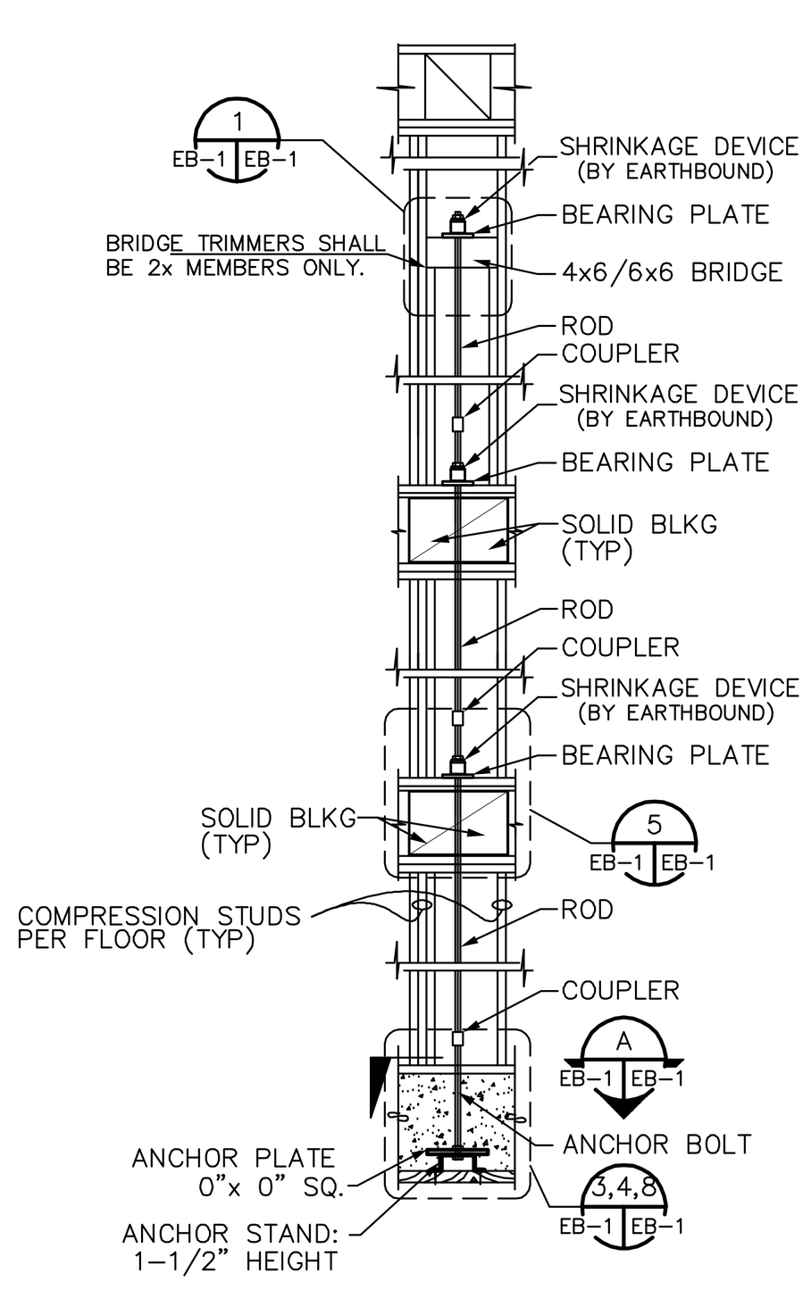
RUN TYPE XX

WOOD FLOOR LEVEL	UPLIFT TENSION LOADS	CALCULATED DIFFERENTIAL LOADS	COLLECTED DIFFERENTIAL LOADS	WOOD COMPRESSION DOWNLOAD
5th	-----	-----	-----	-----
4th	-----	-----	-----	-----
3rd	-----	-----	-----	-----
2nd	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
1st	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS



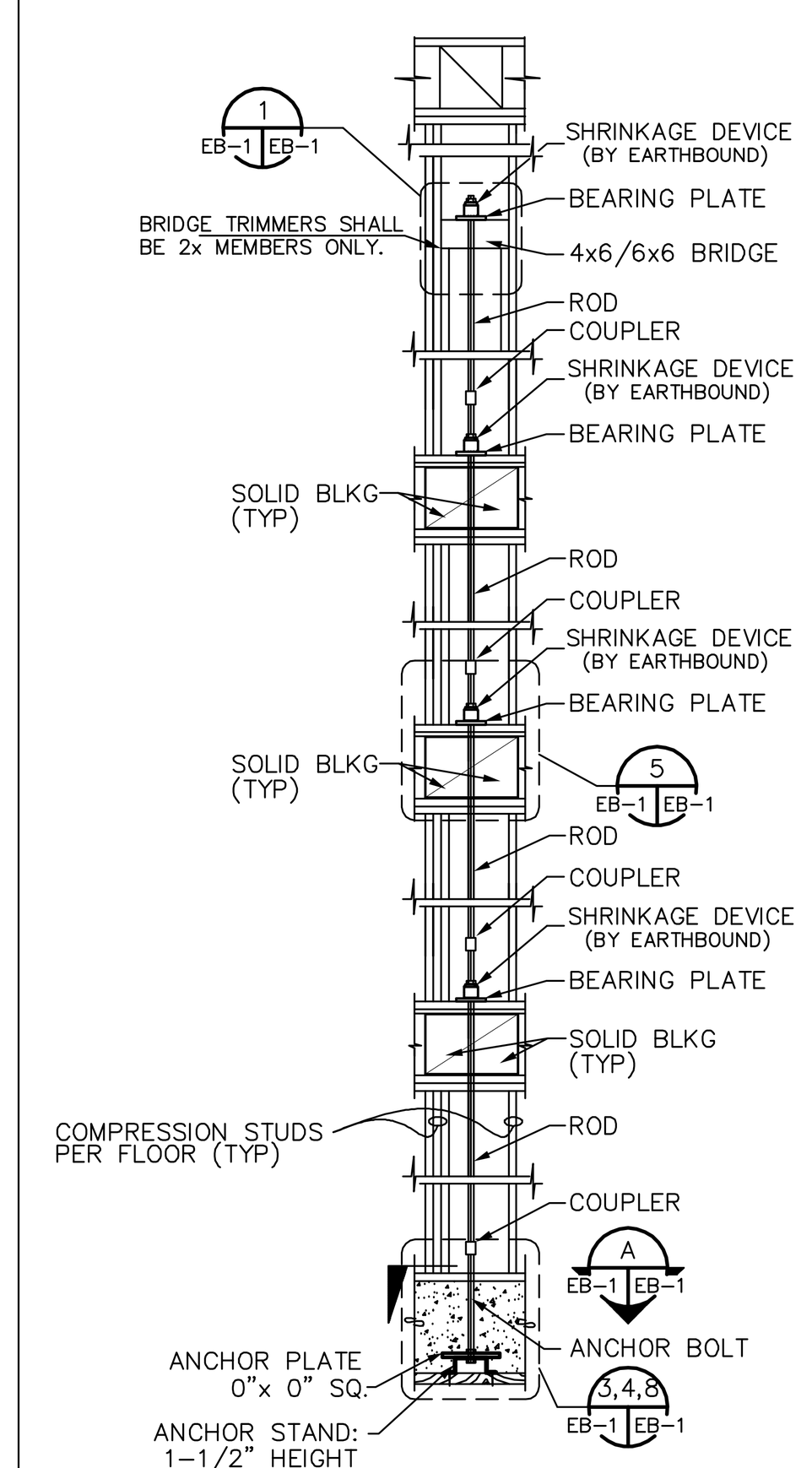
RUN TYPE XX

WOOD FLOOR LEVEL	UPLIFT TENSION LOADS	CALCULATED DIFFERENTIAL LOADS	COLLECTED DIFFERENTIAL LOADS	WOOD COMPRESSION DOWNLOAD
5th	-----	-----	-----	-----
4th	-----	-----	-----	-----
3rd	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
2nd	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
1st	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS



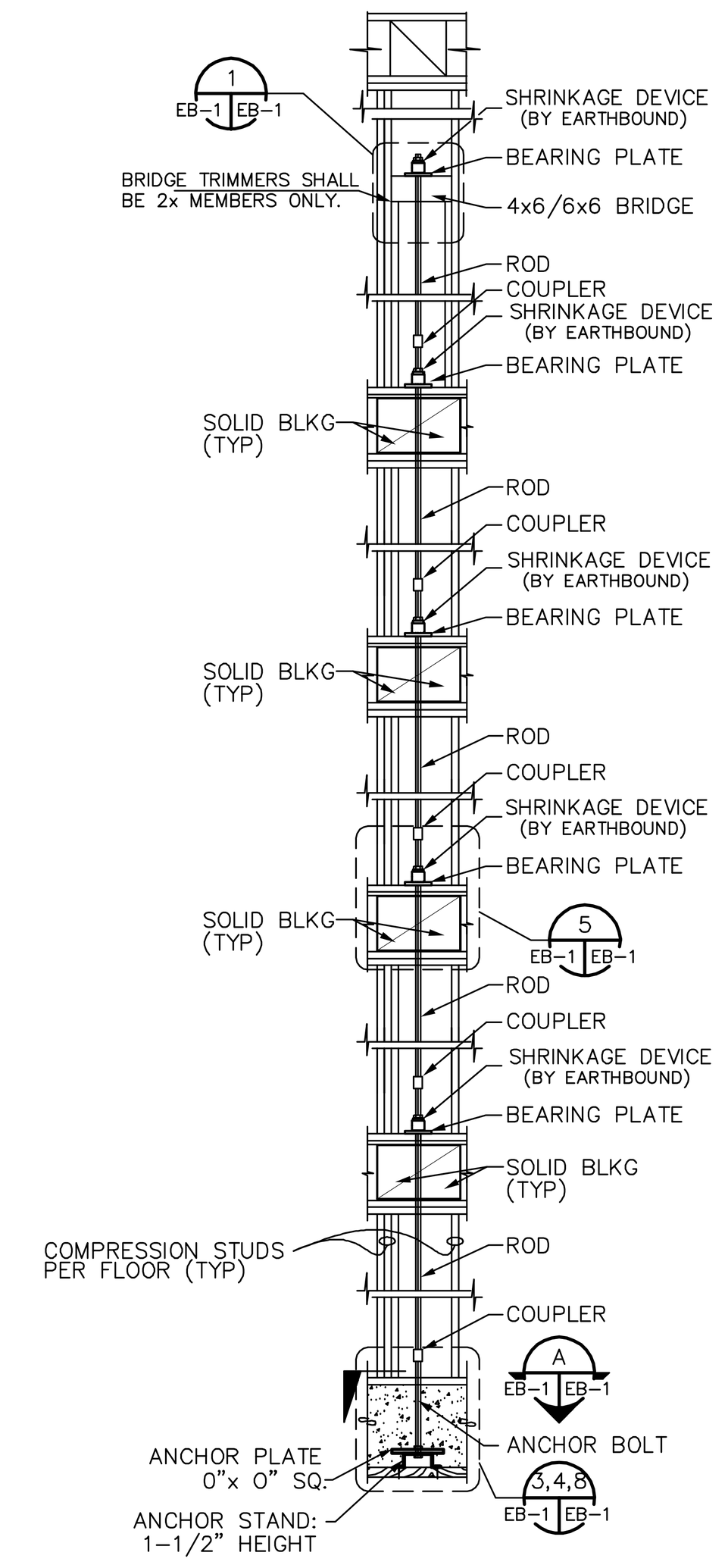
RUN TYPE XX

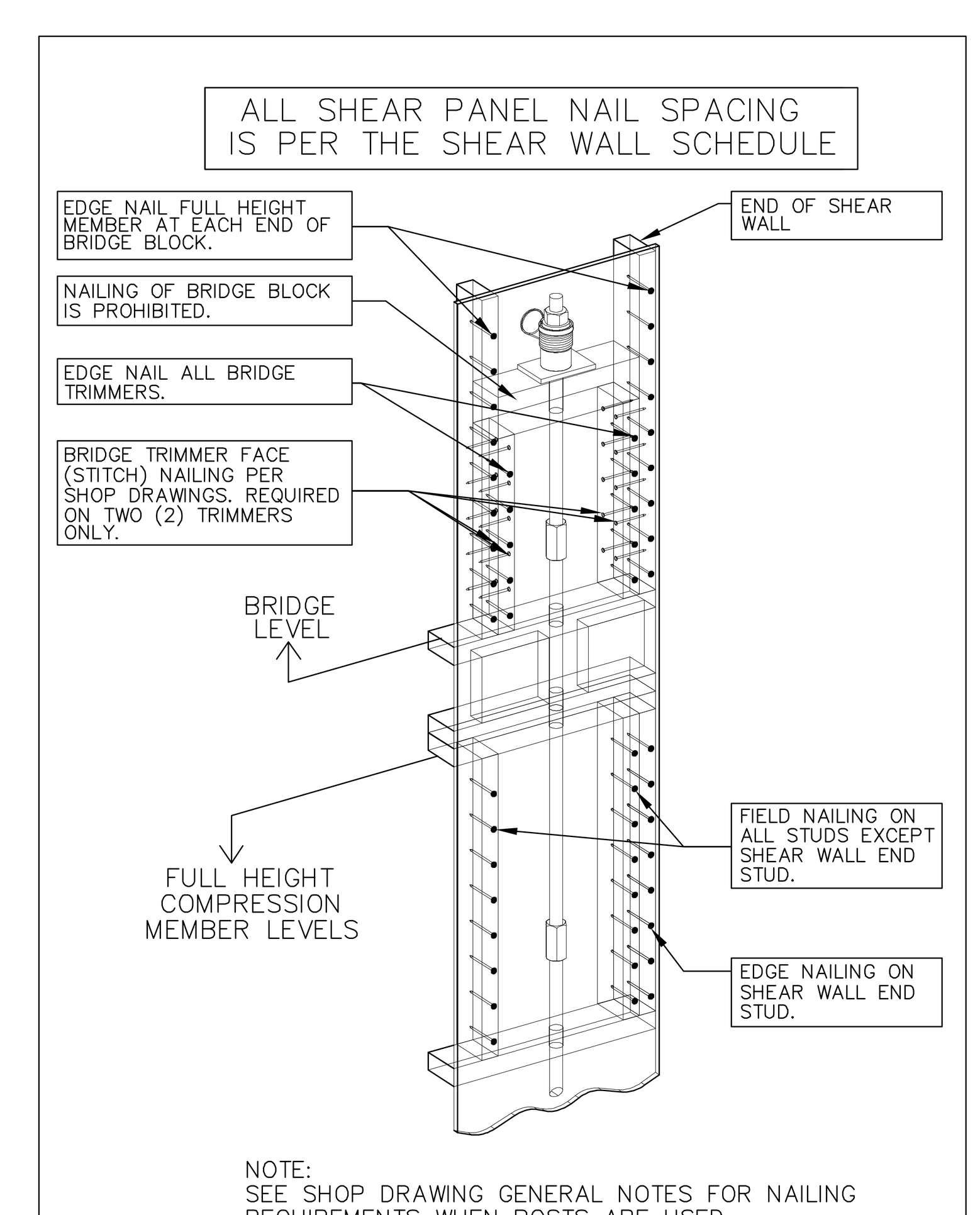
WOOD FLOOR LEVEL	UPLIFT TENSION LOADS	CALCULATED DIFFERENTIAL LOADS	COLLECTED DIFFERENTIAL LOADS	WOOD COMPRESSION DOWNLOAD
5th	-----	-----	-----	-----
4th	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
3rd	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
2nd	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
1st	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS



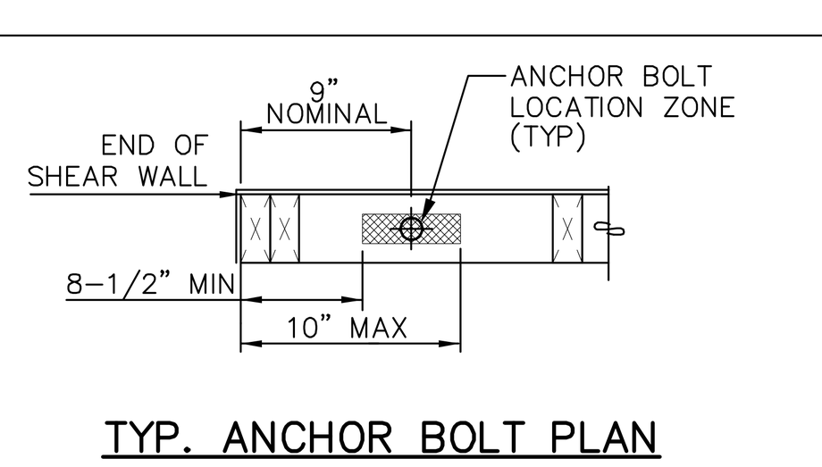
RUN TYPE XX

WOOD FLOOR LEVEL	UPLIFT TENSION LOADS	CALCULATED DIFFERENTIAL LOADS	COLLECTED DIFFERENTIAL LOADS	WOOD COMPRESSION DOWNLOAD
5th	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
4th	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
3rd	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
2nd	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS
1st	X,XXX LBS	X,XXX LBS	X,XXX LBS	X,XXX LBS



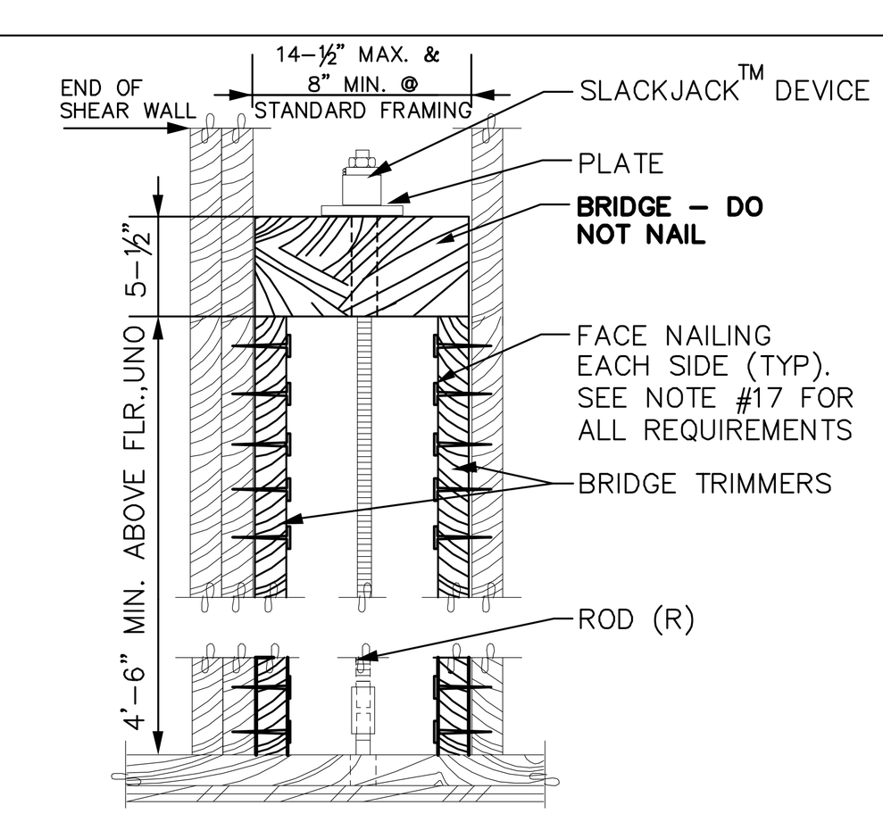


NAILING SAMPLE

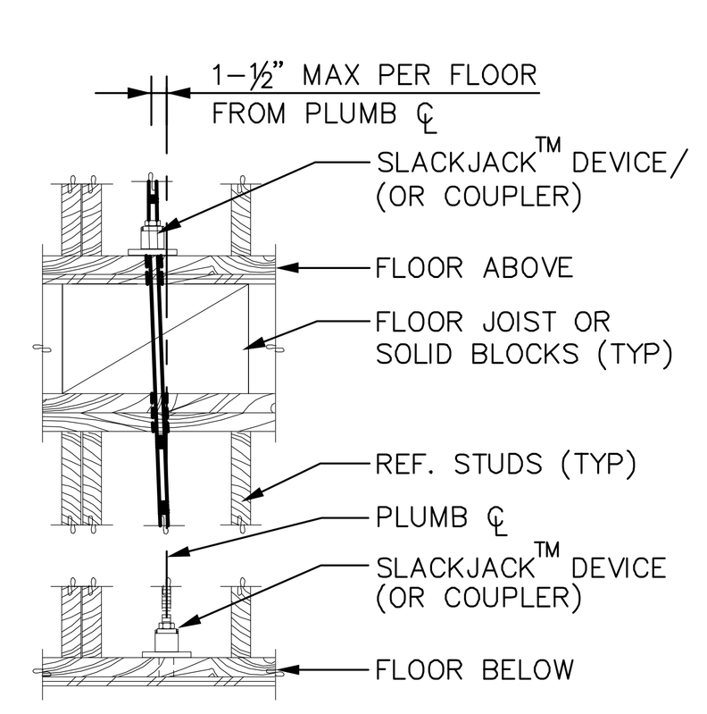


TYP. ANCHOR BOLT PLAN
DETAIL A
SCALE: NONE

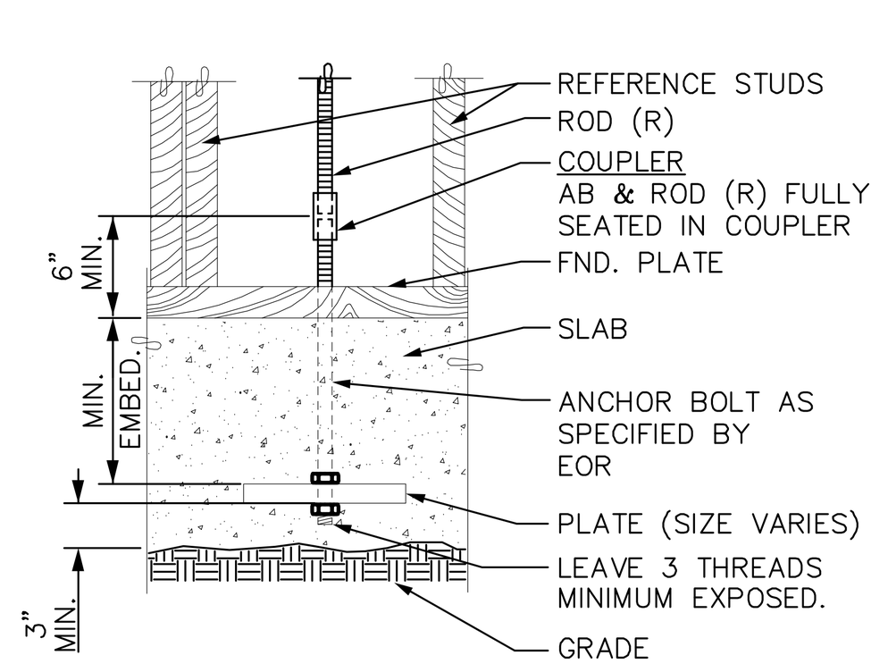
ANCHOR BOLT NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WALL TYPE AND FRAMING LAYOUT BEFORE LOCATING ANCHOR BOLTS IN CONCRETE.
2. ALL DIMENSIONS ARE TYPICAL U.N.O.



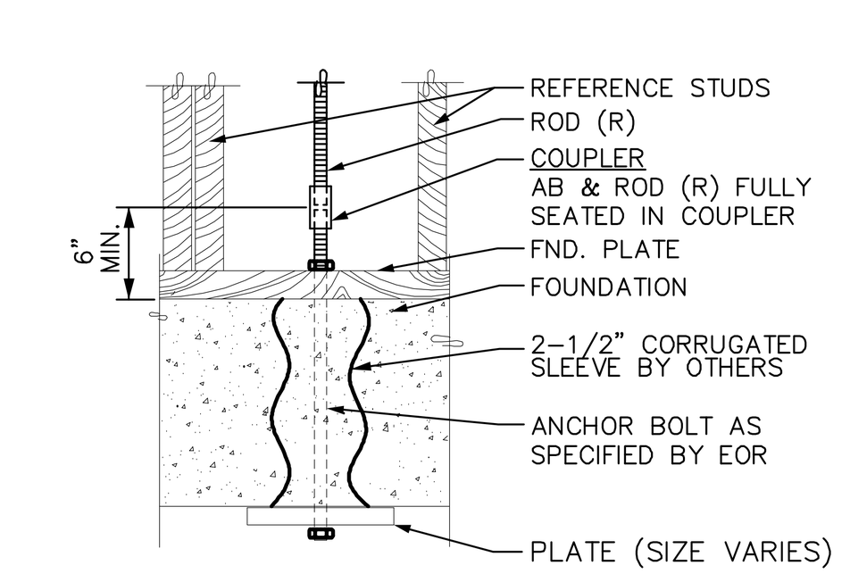
TYP. BRIDGE INSTALLATION
DETAIL 1
SCALE: NONE



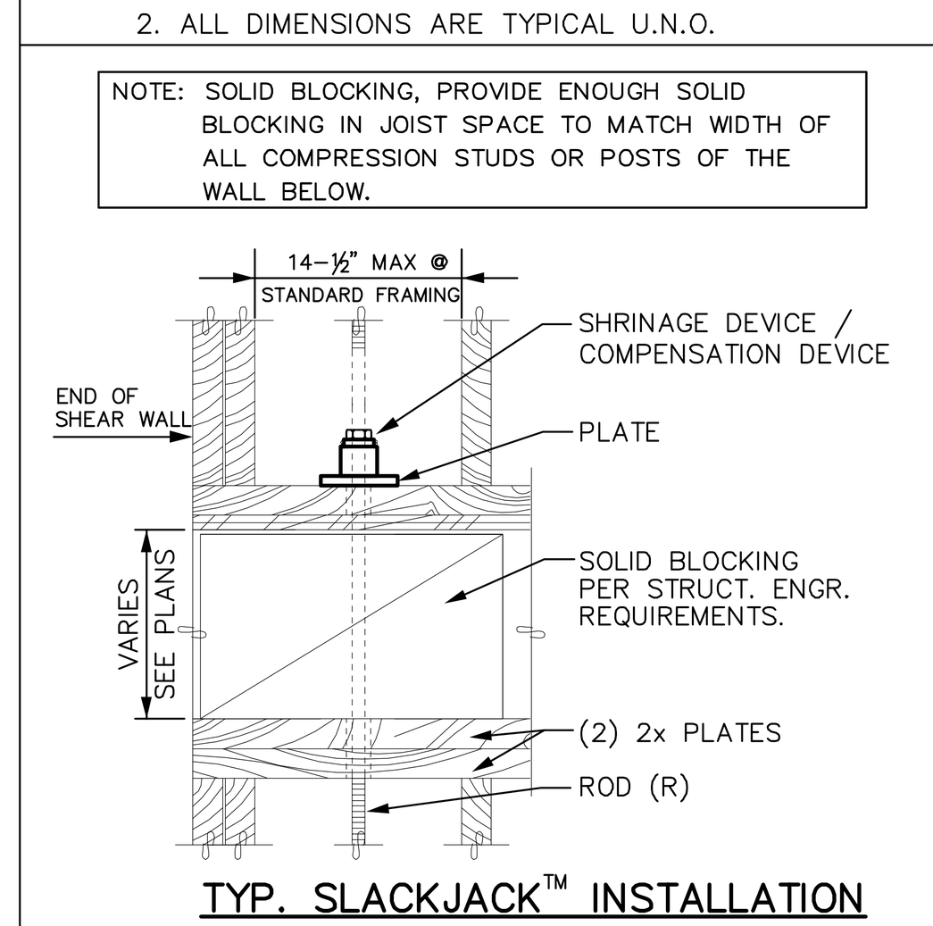
ALLOWABLE ROD OFFSET
DETAIL 2
SCALE: NONE



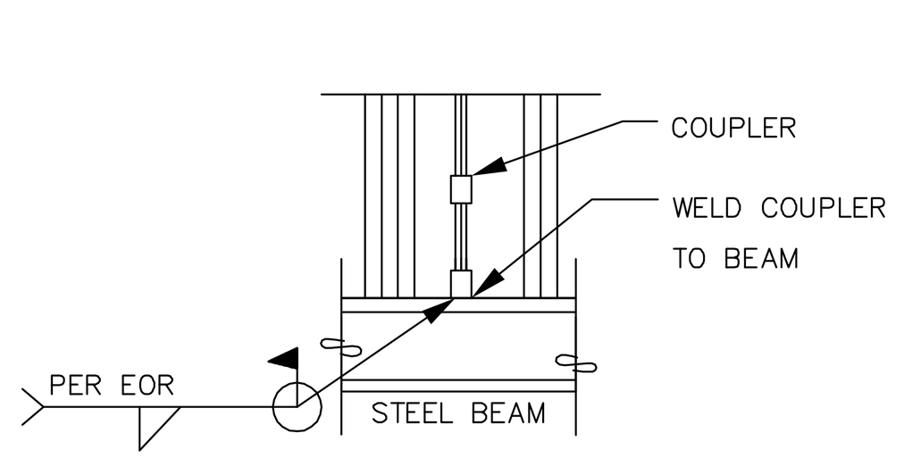
TYP. ANCHOR BOLT INSTALLATION
SLAB ON GRADE ONLY
DETAIL 3
SCALE: NONE



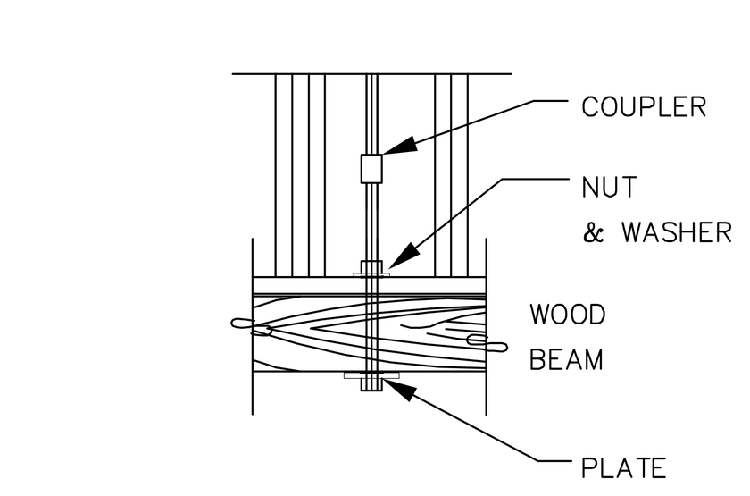
TYP. ANCHOR BOLT INSTALLATION
THRU-BOLT OPTION
DETAIL 4
SCALE: NONE



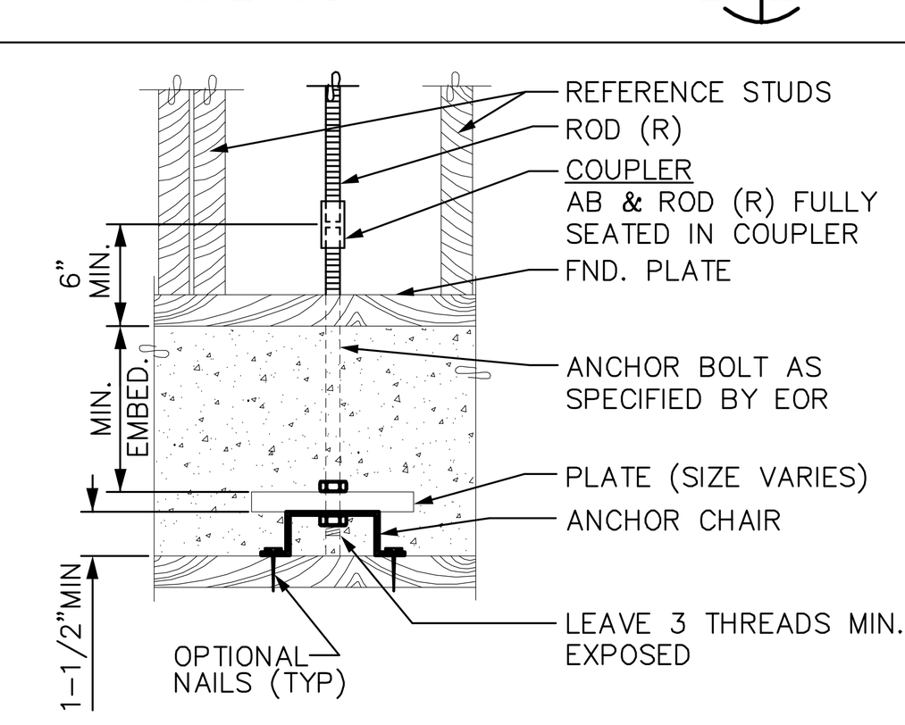
TYP. SLACKJACK™ INSTALLATION
DETAIL 5
SCALE: NONE



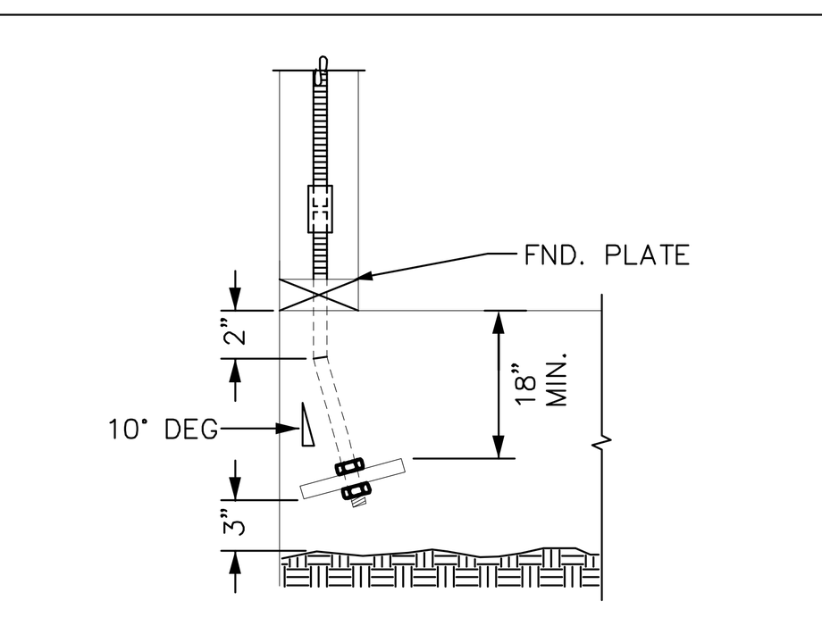
TYP. ANCHOR BOLT INSTALLATION
STEEL BEAM OPTION
DETAIL 6
SCALE: NONE



TYP. ANCHOR BOLT INSTALLATION
WOOD BEAM OPTION
DETAIL 7
SCALE: NONE



TYP. ANCHOR BOLT INSTALLATION
P.T. DECK ONLY
DETAIL 8
SCALE: NONE



TYP. ANCHOR BOLT INSTALLATION
SLAB EDGE CONDITIONS ONLY
DETAIL 9
SCALE: NONE

CONTINUOUS ROD SYSTEM NOTE:

Self-Tightening Holdown System shall be designed by the manufacturer for the loads and conditions shown on the drawings and shall be furnished and installed in conformance with the manufacturer's instructions.
Self-Tightening System shall be designed to accomodate 3/8" of shrinkage per floor.

Shop Drawings and calculations shall be provided as a deferred submittal to the architect and structural engineer of record.

Shop drawings shall indicate load capacities and self-tightening device(s) of each holdown run. These products shall be as follows:

Earthbound Seismic Holdown System using the "SlackJack®" shrinkage compensating device manufactured by Earthbound Corporation (ICC-ES Report No. ESR-2848). www.slackjack.com (800) 944-5669