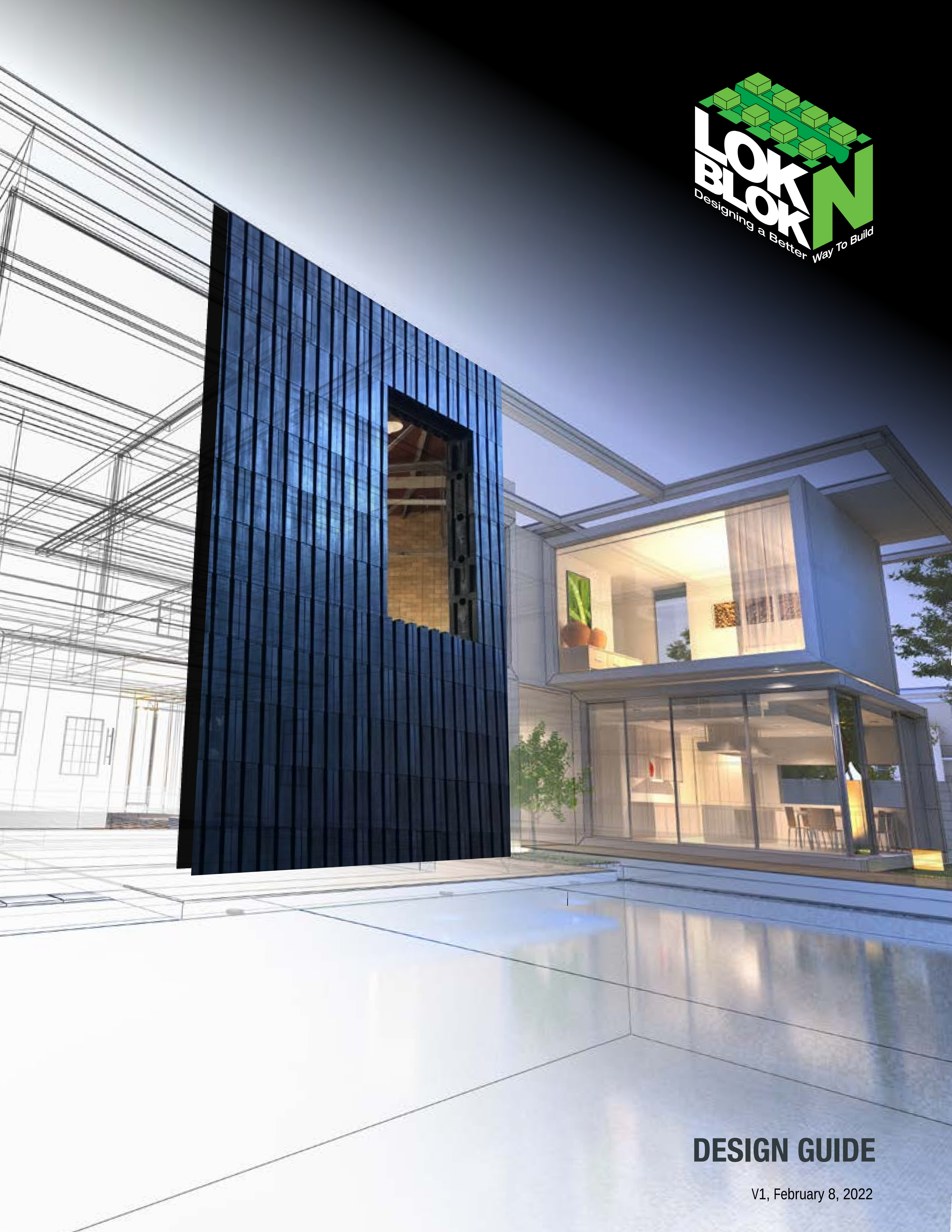


LOK BLOK N

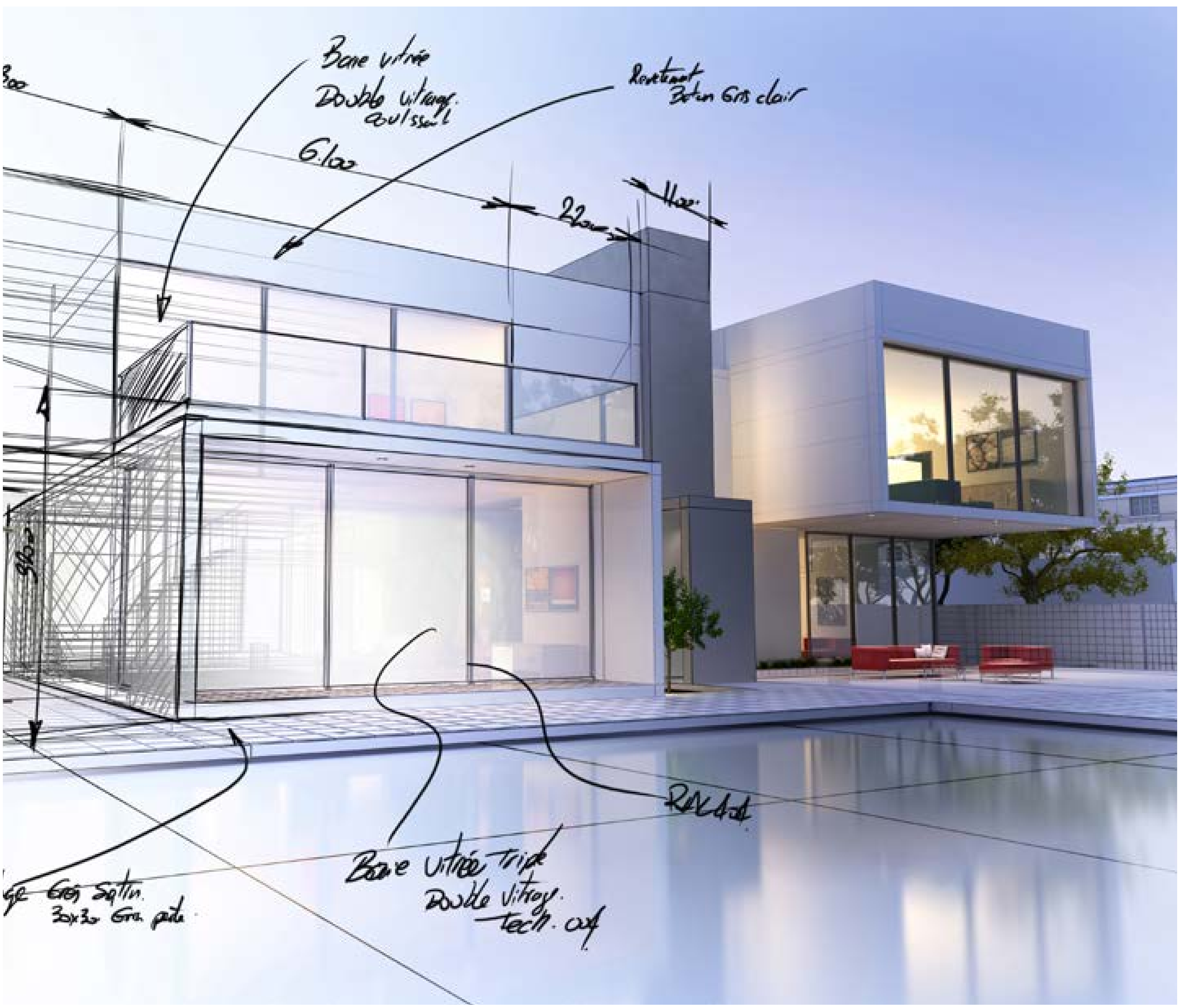
Designing a Better Way To Build

DESIGN GUIDE

V1, February 8, 2022

LOK–N–BLOK strives to become the world leader in innovative disruptive technologies for the construction industry.

Our goal will be achieved through the development of processes to design, manufacture, and distribute our leading edge building technologies through LOK–N–BLOK and its ancillary product lines locally, nationally and internationally.



V1, February 8, 2022

The original idea for this company started with an idea for an easy to use, do–it–yourself type building block that would be as easy to use as a child's set of "Lego" blocks. Our first work was performed by hand sketching what a block would look like, and how the interlocking features would be designed that would allow the "Average Joe" the ability to build a straight, self aligning wall without all the hassle associated with brick and mortar construction. Our first designs of the project were in October of 1996 – but we were a long way from where we stand today.

Throughout the development of our product, we have had several important attributes in mind that had to be achieved. By combining the expertise of the specialists from both the building industry and the injection molding industry, and having them directly involved in the design process we can now offer a product that has the following characteristics.

- HIGH COMPRESSIVE STRENGTH
- HIGH TENSILE STRENGTH
- FIRE RESISTANCE
- WATER RESISTANT
- SUPERIOR MOLDABILITY
- UV RESISTANCE
- LIGHT WEIGHT (APPROX. 6.2 LBS.)
- EARTH FRIENDLY OR "GREEN"
- FIELD MODIFIABLE
- BACTERIA RESISTANT
- MOLD RESISTANT
- VERY GOOD SOUND ABSORPTION QUALITIES

Our final product – LOK–N–BLOK – has achieved and exceeded our expectation of combining all of the desirable attributes and more. We feel that our product answers all potential problems facing the construction business today, with the ease of use of a child's plastic building block. Furthermore, through our own initial consumer reviews of our design, as well as an independent marketing feasibility study, we are sure that LOK–N–BLOK will be a disruptive technological breakthrough in the building industry.

BLOCK DESIGN

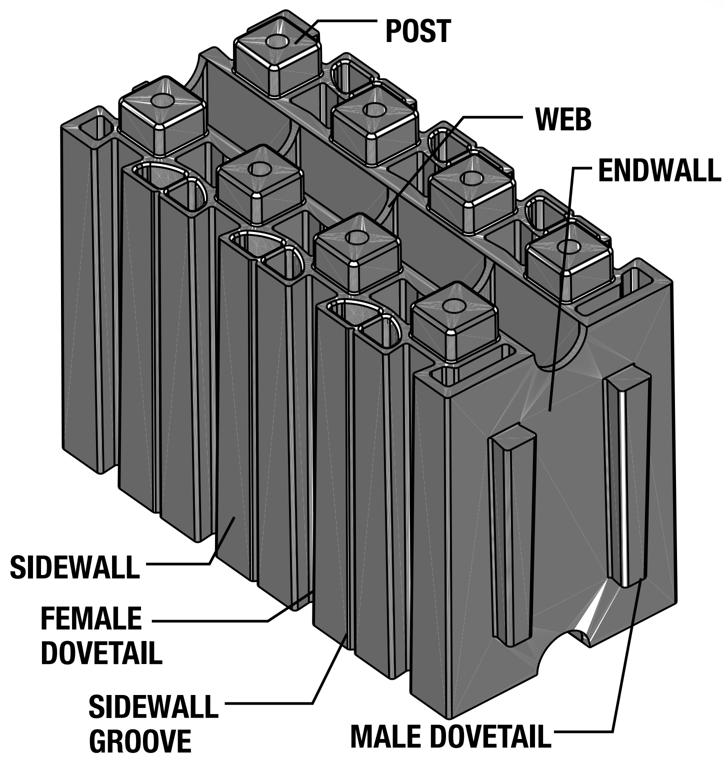
Each element of the Lok–N–Blok is designed to work together. The top of each block features eight square–shaped posts that are designed to snap into receivers in the base of each block.

The exterior of three sides of the block feature female dovetails. These dovetails taper down from top to bottom and are designed to receive the male dovetail on the fourth side of the block. The tapered dovetails lock the block into place—once it is set from above, it can only be removed the way it was installed.

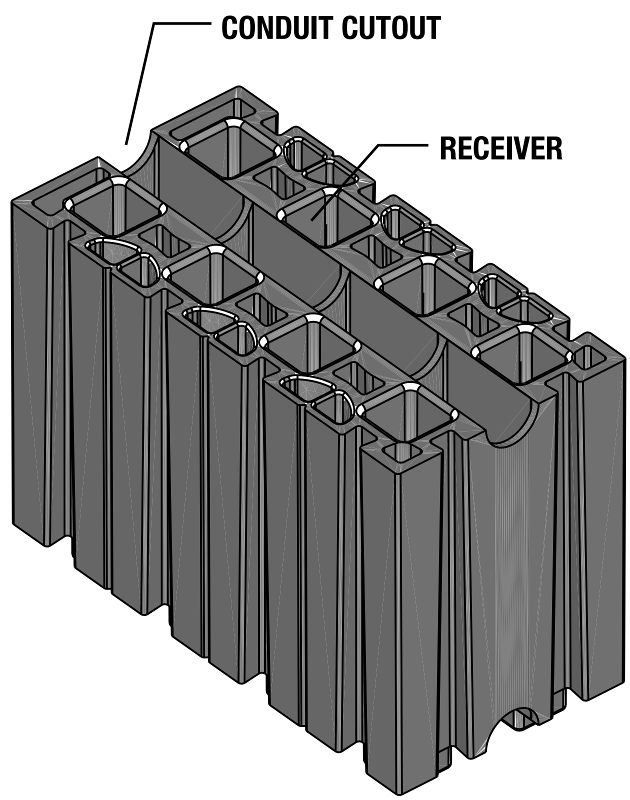
This design also allows interior walls to be locked perpendicular to the face of the wall, as the male dovetails can lock into any pair of female dovetails around the block.

The interior of the block is designed for both strength and to provide room for reinforcing and conduit. Three interior ribs create four separate areas for vertical installations of reinforcing and conduit. Similarly, the bottom and top of the block are notched to accept horizontal conduit.

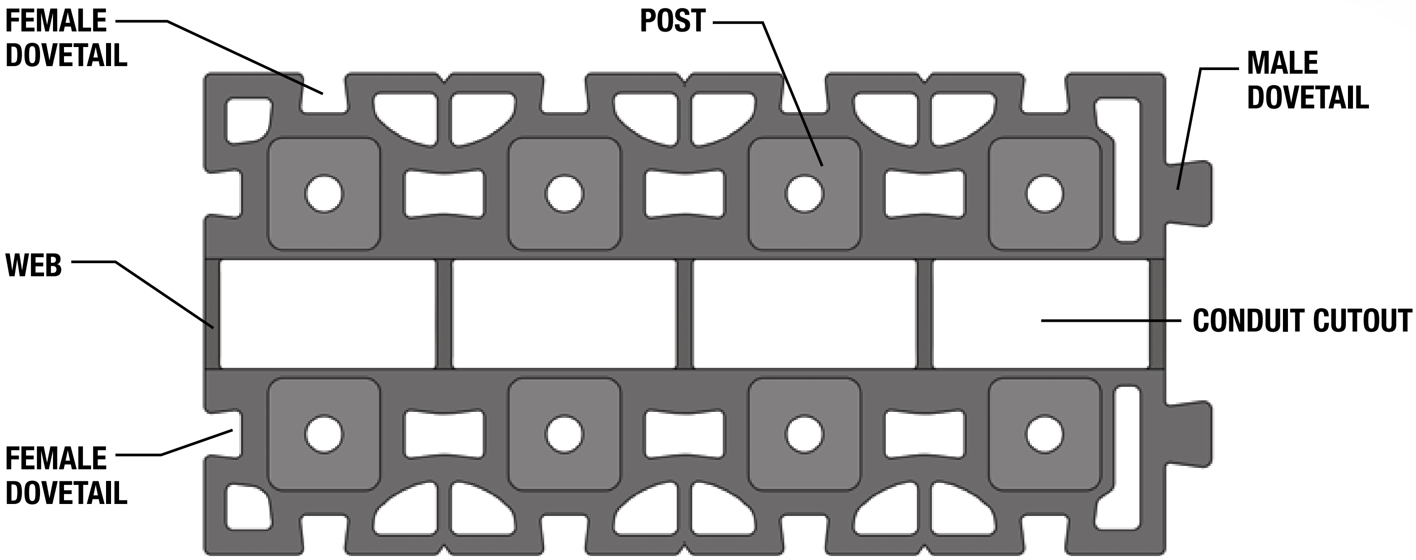
Even the interior walls of the blocks are purposefully designed. To accommodate openings, the block is designed to be cut in half or quarters. Small reveals on surface of the block between the female dovetails denote where the block can be cut. The interior ribs are strategically placed here to form the face of the cut block, while the bowtie cutouts become female dovetails when cut in half.



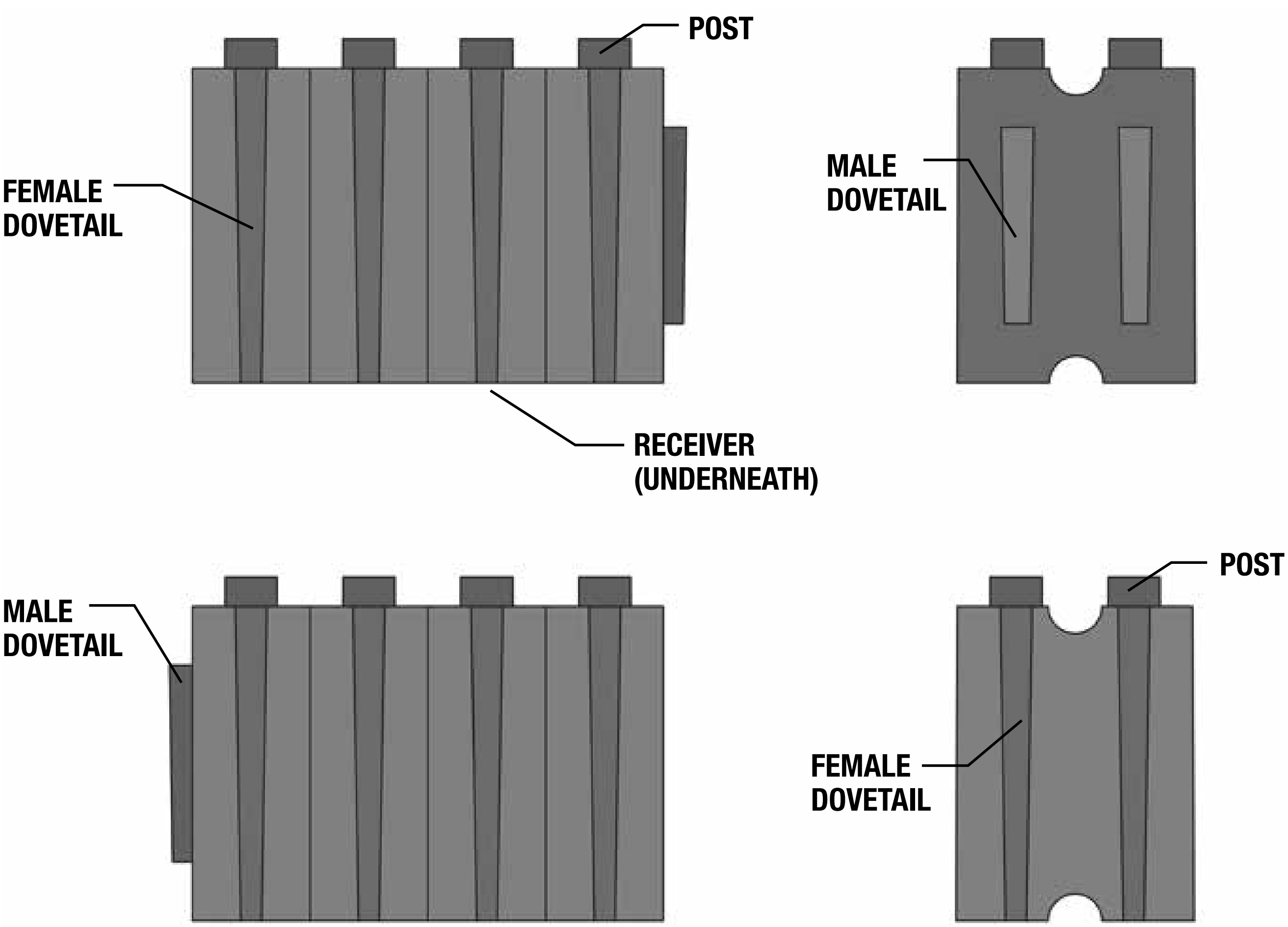
TOP VIEW



BOTTOM VIEW



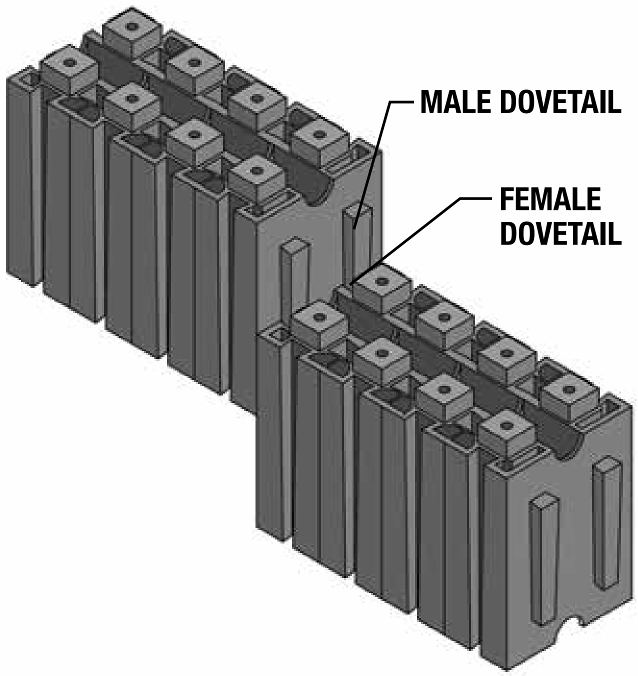
PLAN VIEW



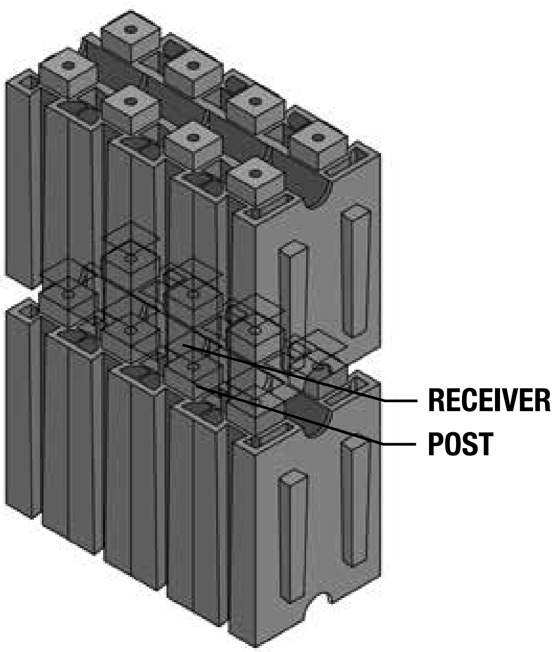
ELEVATION VIEWS

CONNECTING BLOCKS

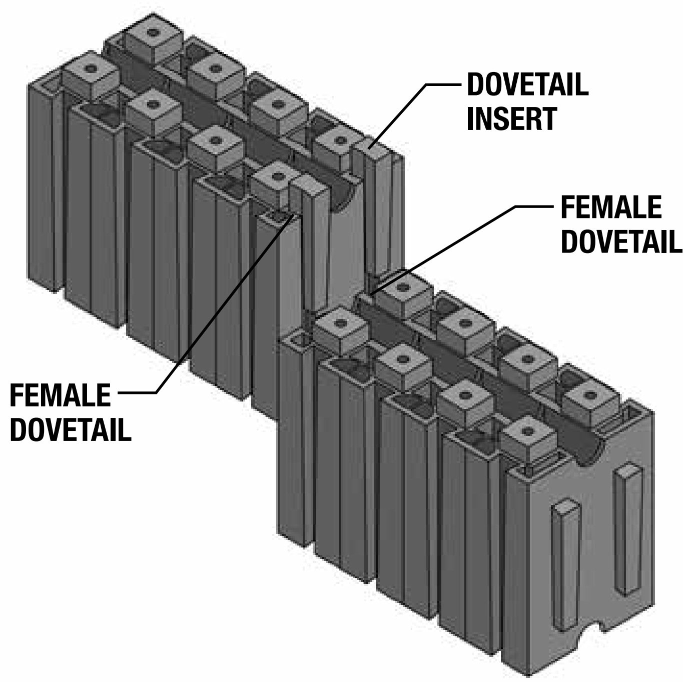
Lok–N–Bloks are designed to slide together. To attach blocks in the same course, place a starter block with an exposed female end in the direction you wish to build. Slide the male dovetails of the next block into the female dovetails. To stack blocks in courses, align the receivers of the top block with the posts on the block below.



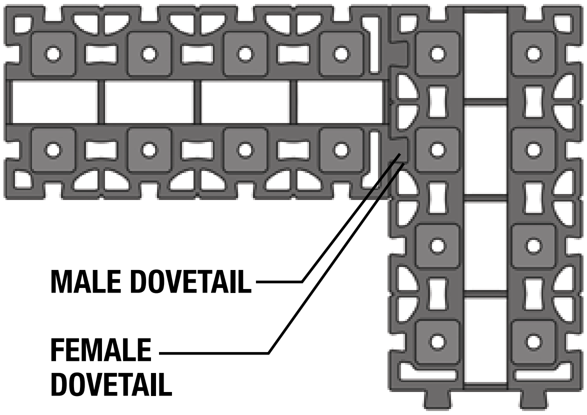
MALE TO FEMALE

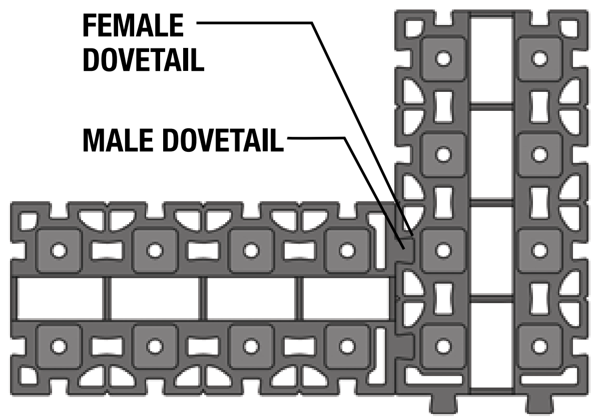


STACKING

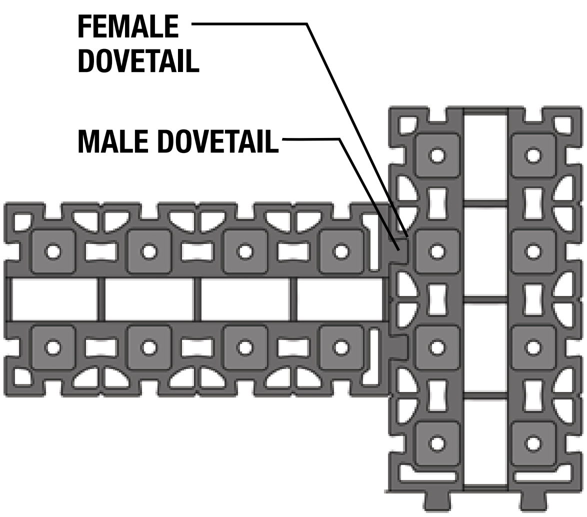


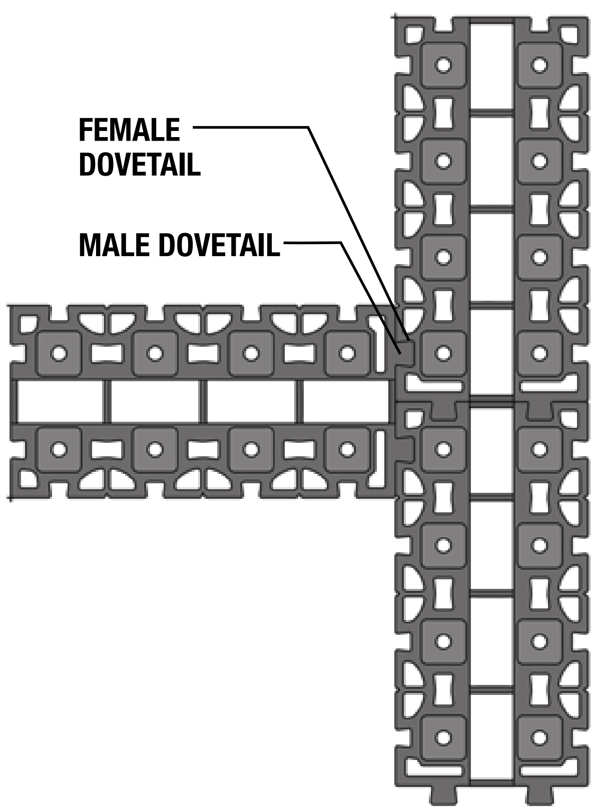
FEMALE TO FEMALE



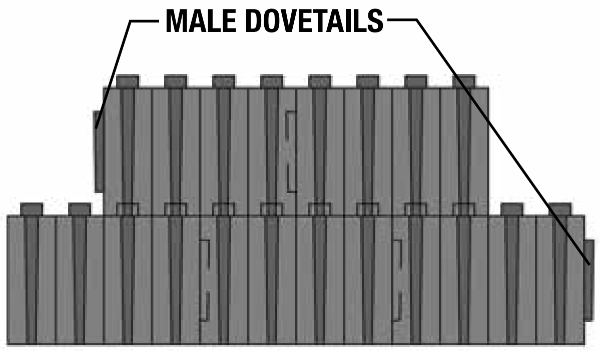


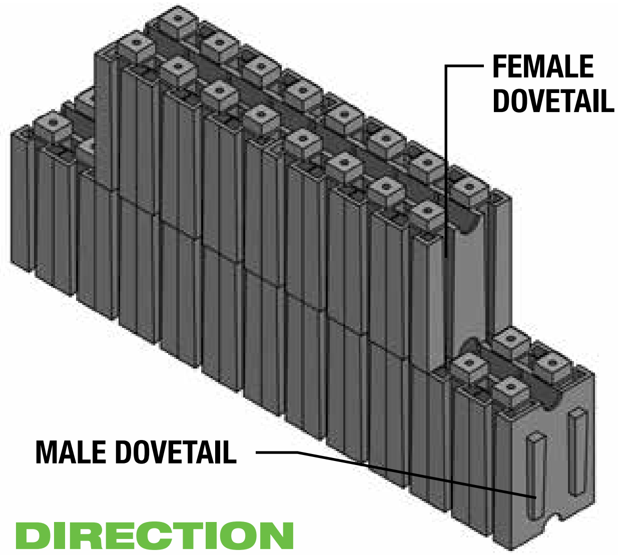
L CONNECTIONS



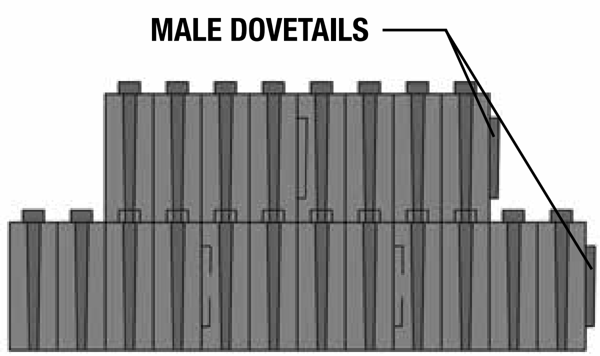


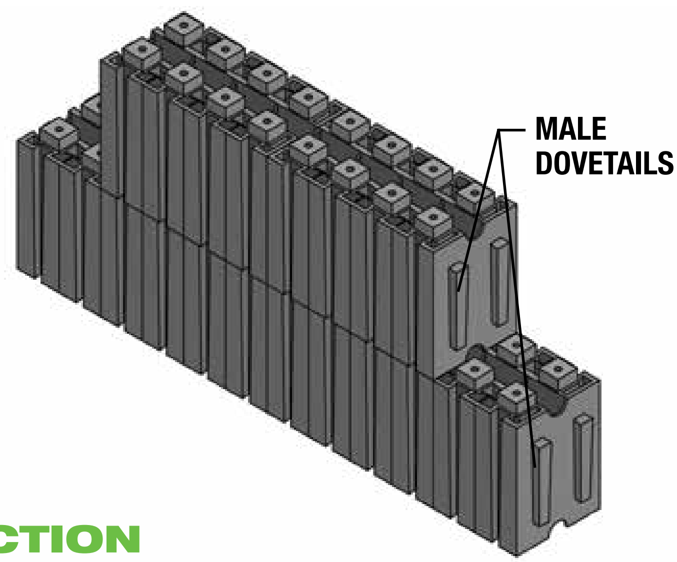
T CONNECTIONS



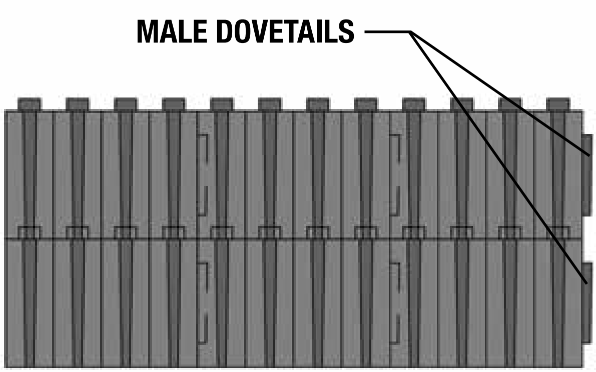


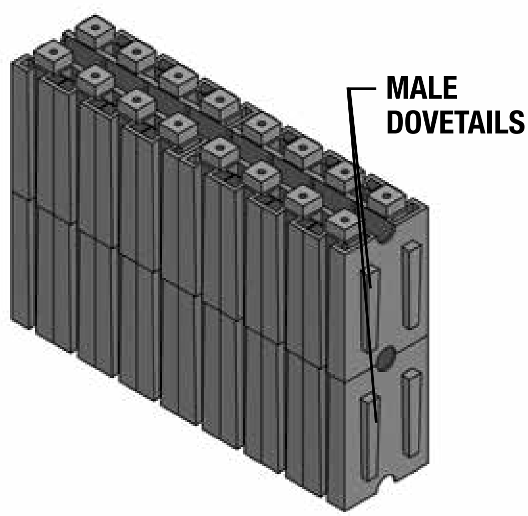
RUNNING BOND – ALTERNATE DIRECTION



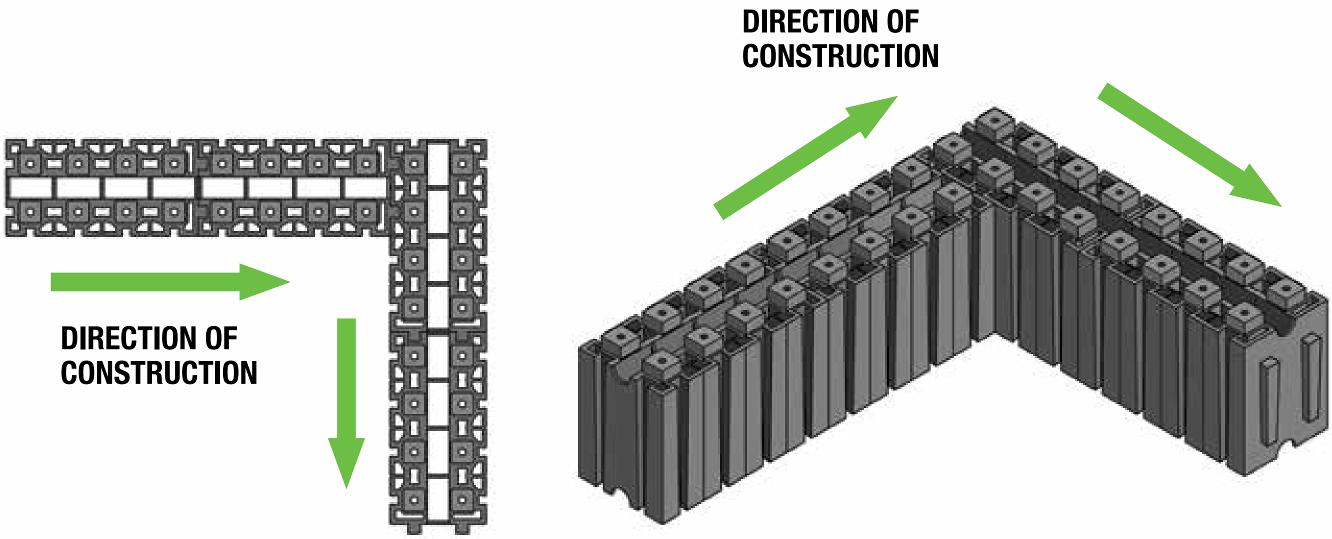


RUNNING BOND – SAME DIRECTION





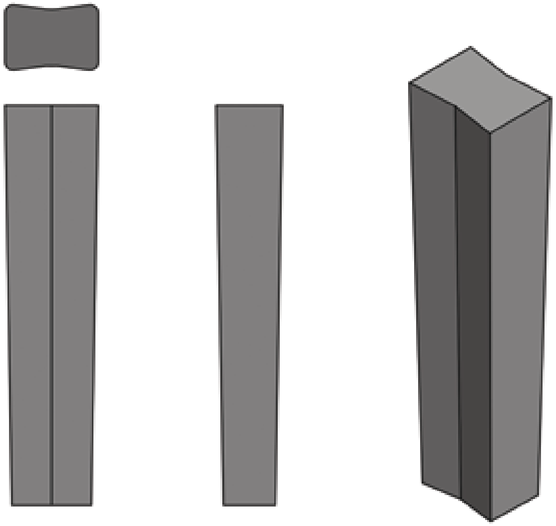
STACK BOND



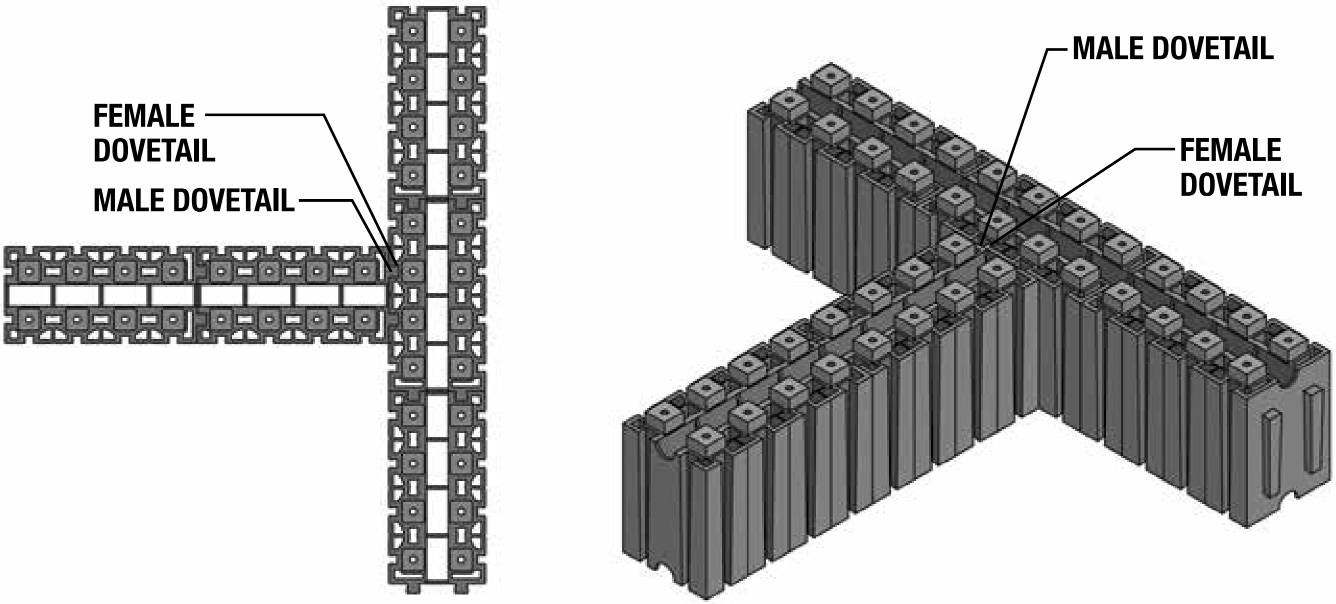
CORNER CONNECTION – FIRST COURSE

Dovetail Insert

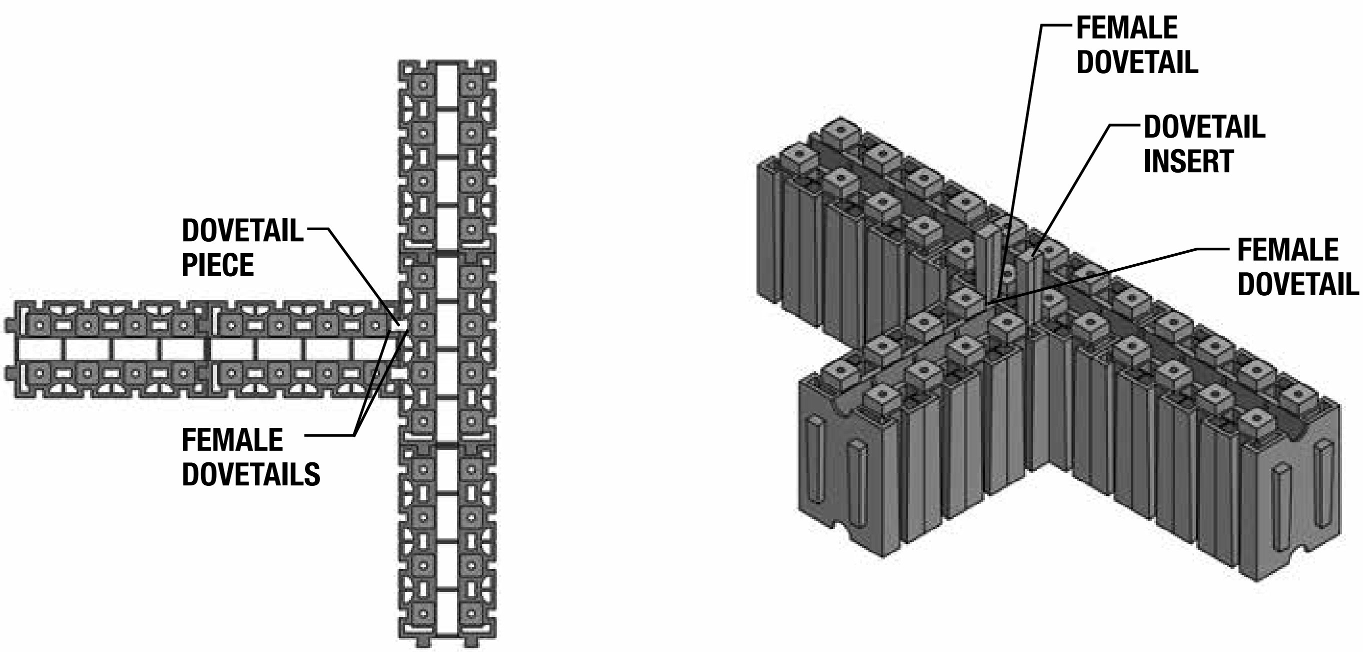
A separate dovetail insert is used to join the blocks where female–to–female ends of the block align. These pieces can be used where blocks are modified for length, when blocks are stacked in the same direction, or at T connections.



DOVETAIL INSERT



MALE TO FEMALE T CONNECTION

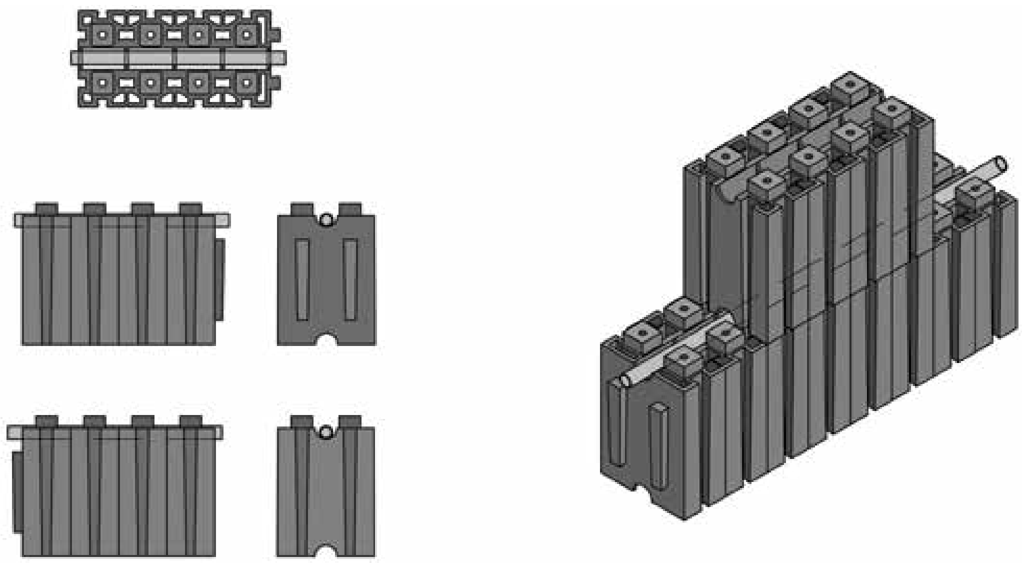


FEMALE TO FEMALE T CONNECTION

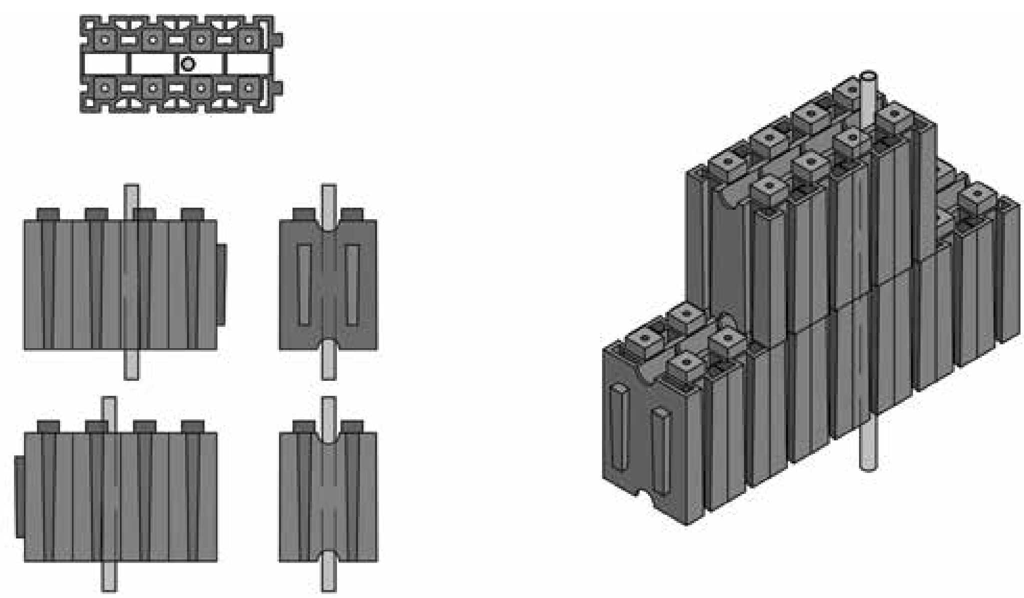
CONDUIT

Lok–N–Blok is designed to allow conduit and other piping to be easily run through the walls as they are constructed. Semicircular conduit cutouts in the top and bottom of each block allow for horizontal runs, while vertical conduit can be placed between webs. To allow for reinforcing, conduit or piping no larger than 1/2 inch in diameter can be used.

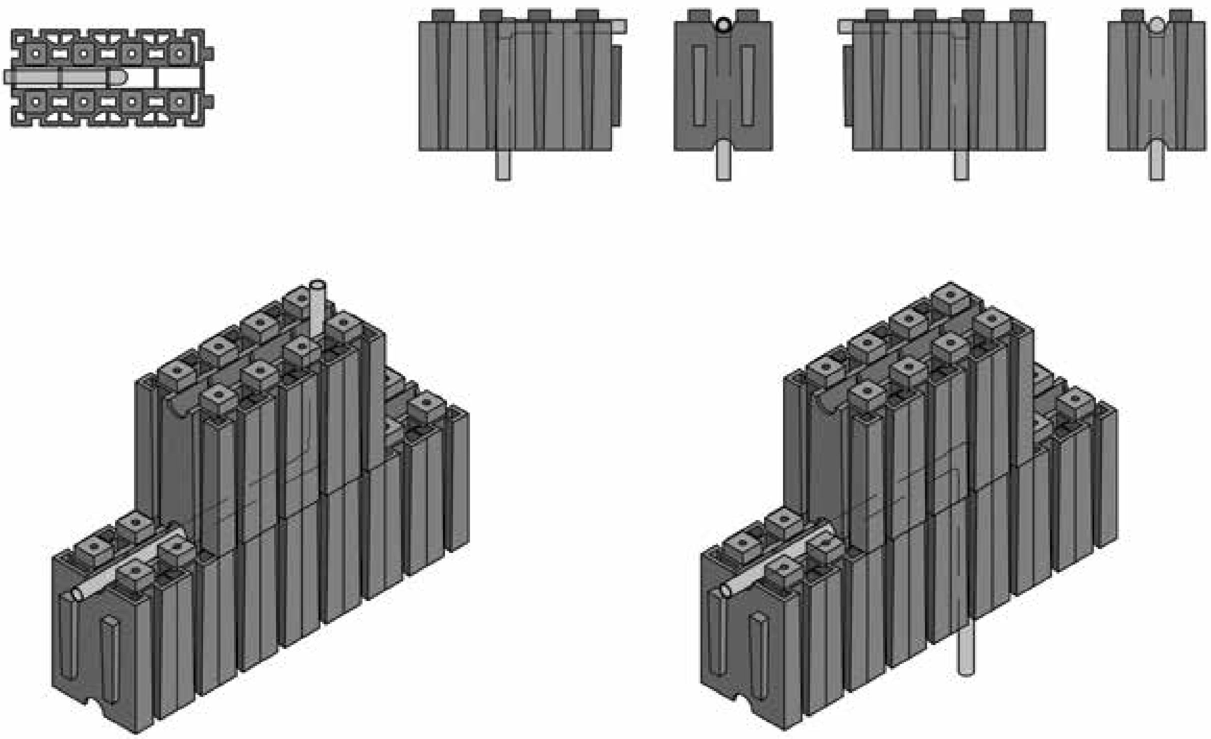
Space to transition conduit or piping from horizontal to vertical is limited. As such, use of an elbow or flexible conduit is recommended.



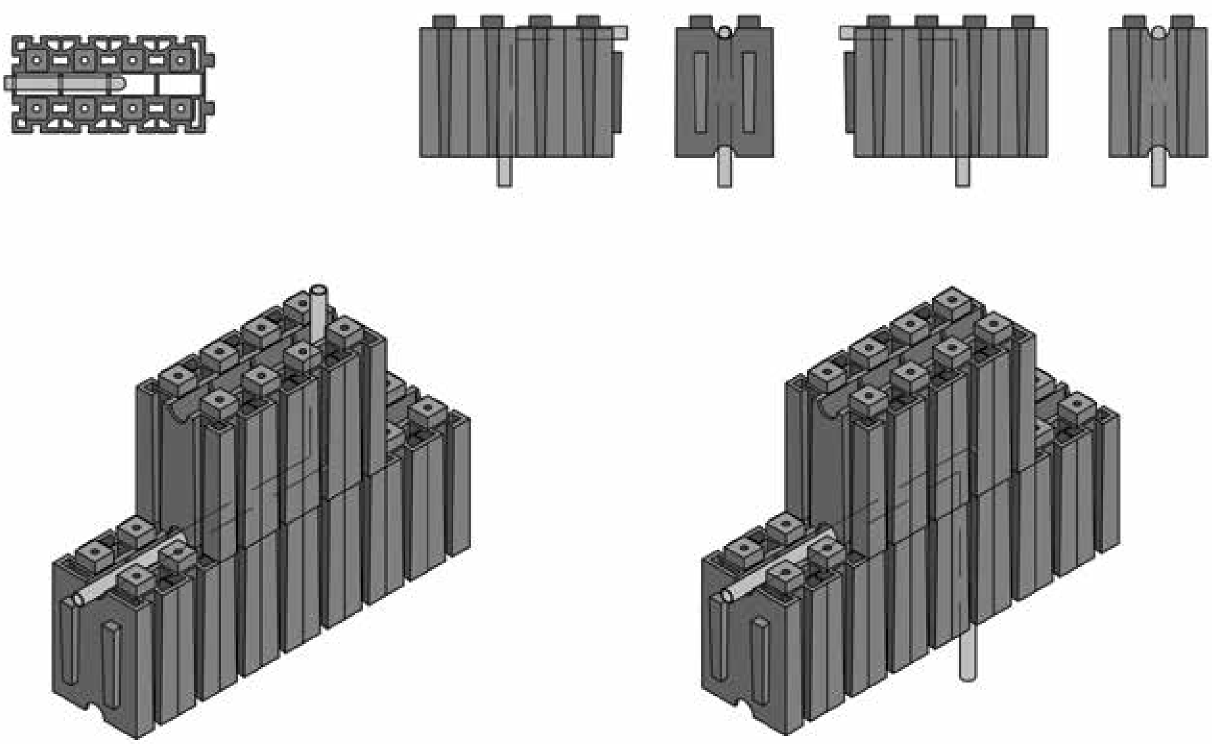
HORIZONTAL CONDUIT



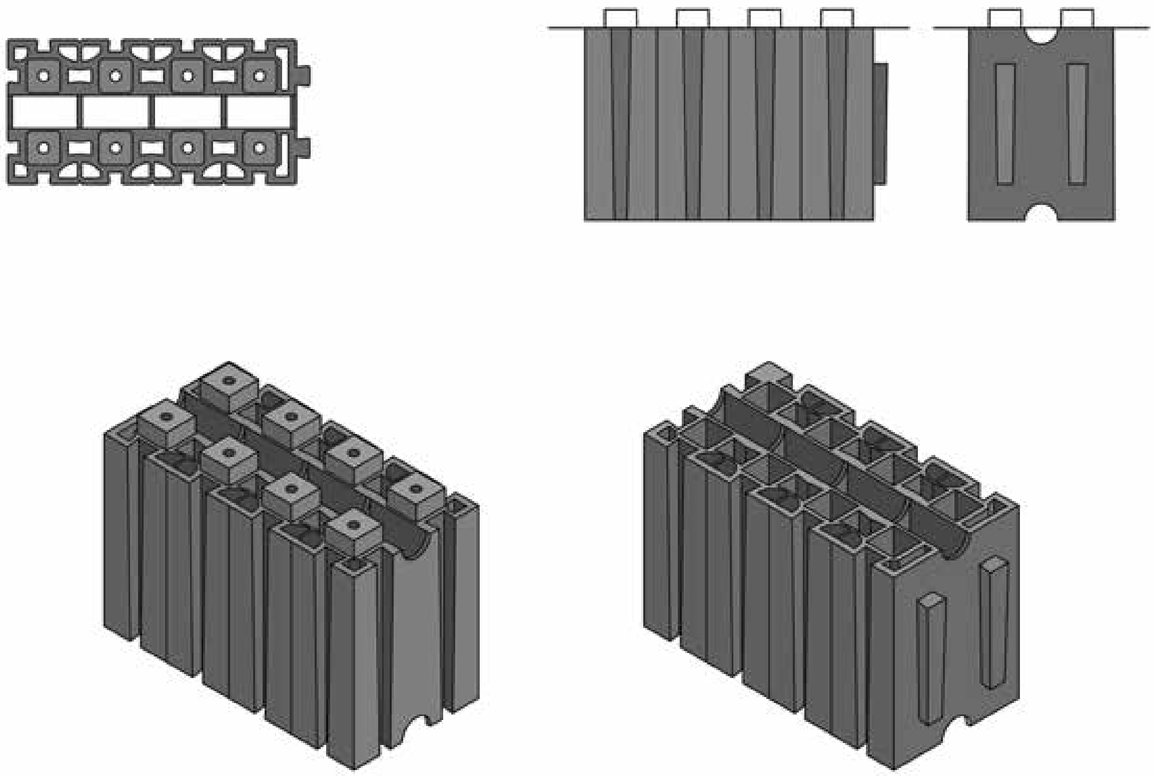
VERTICAL CONDUIT



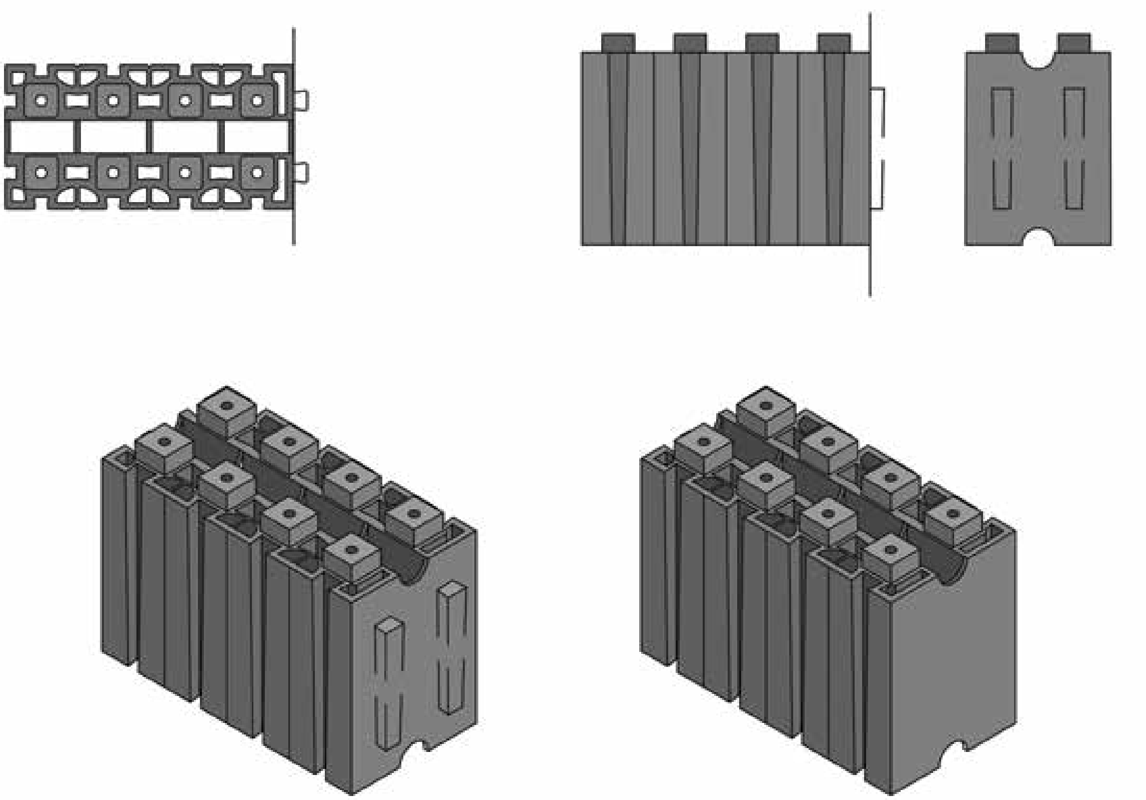
CONDUIT TRANSITION USING ELBOW



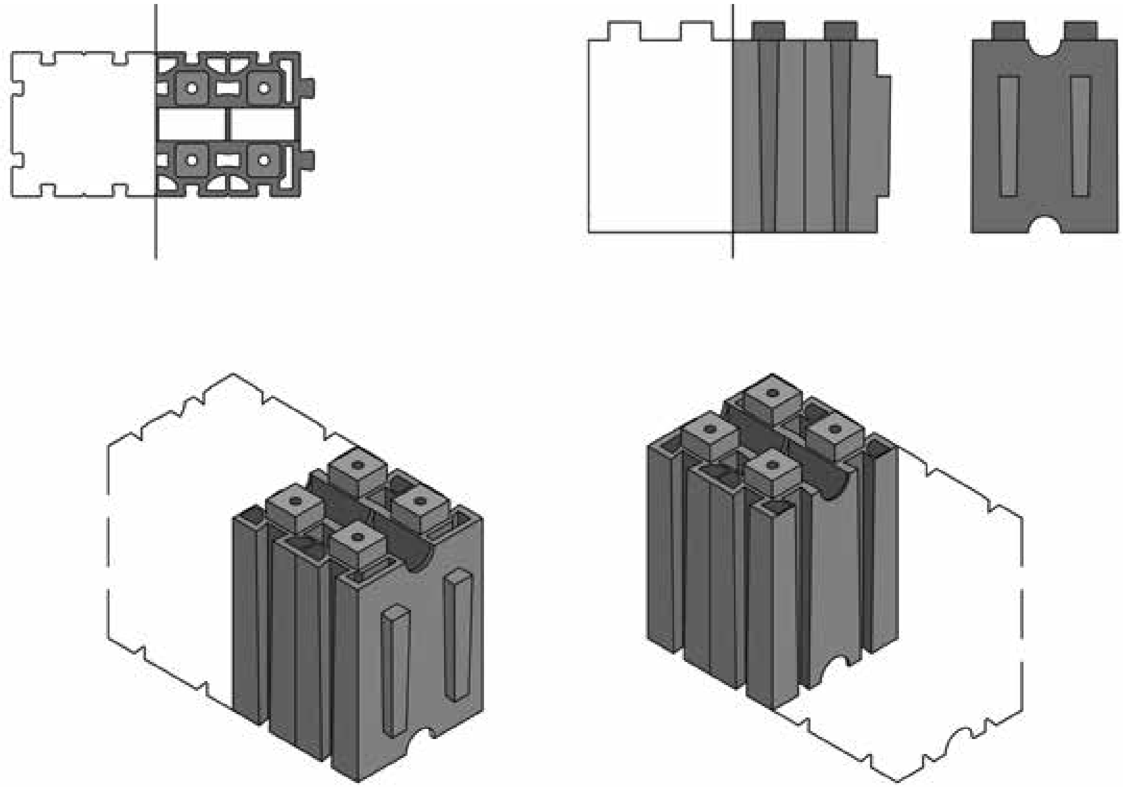
FLEXIBLE CONDUIT TRANSITION



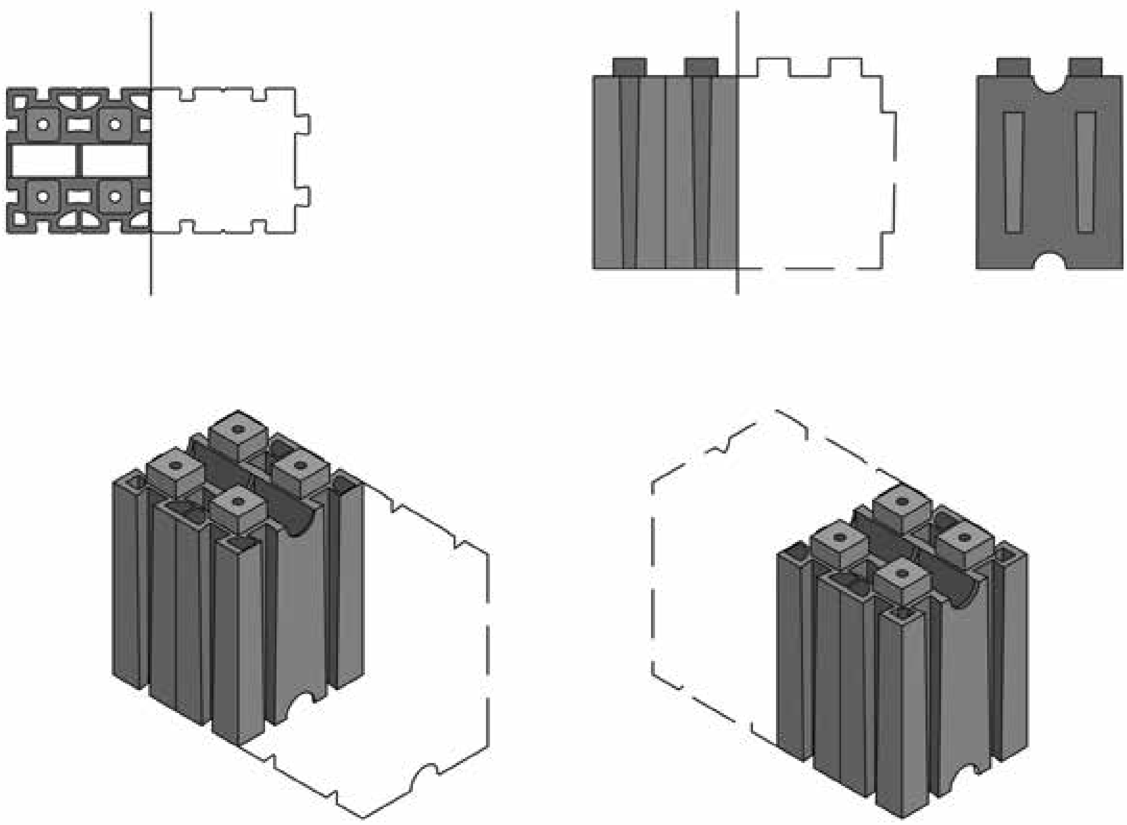
POST REMOVAL



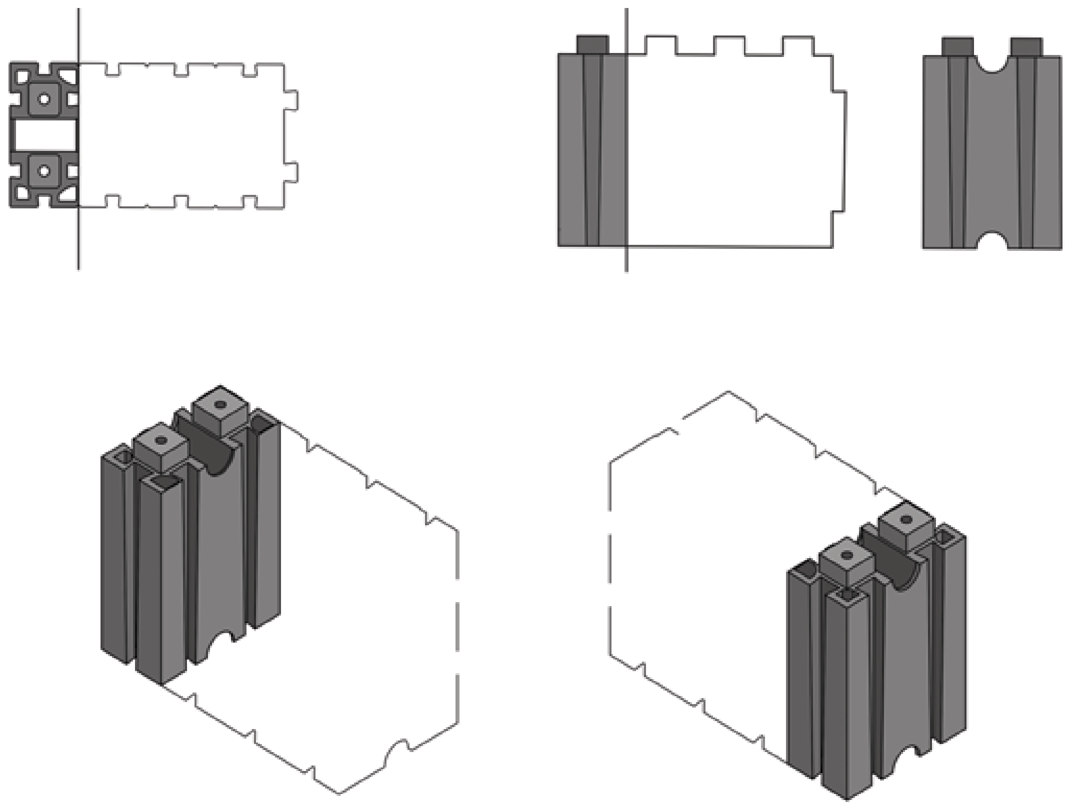
MALE DOVETAIL REMOVAL



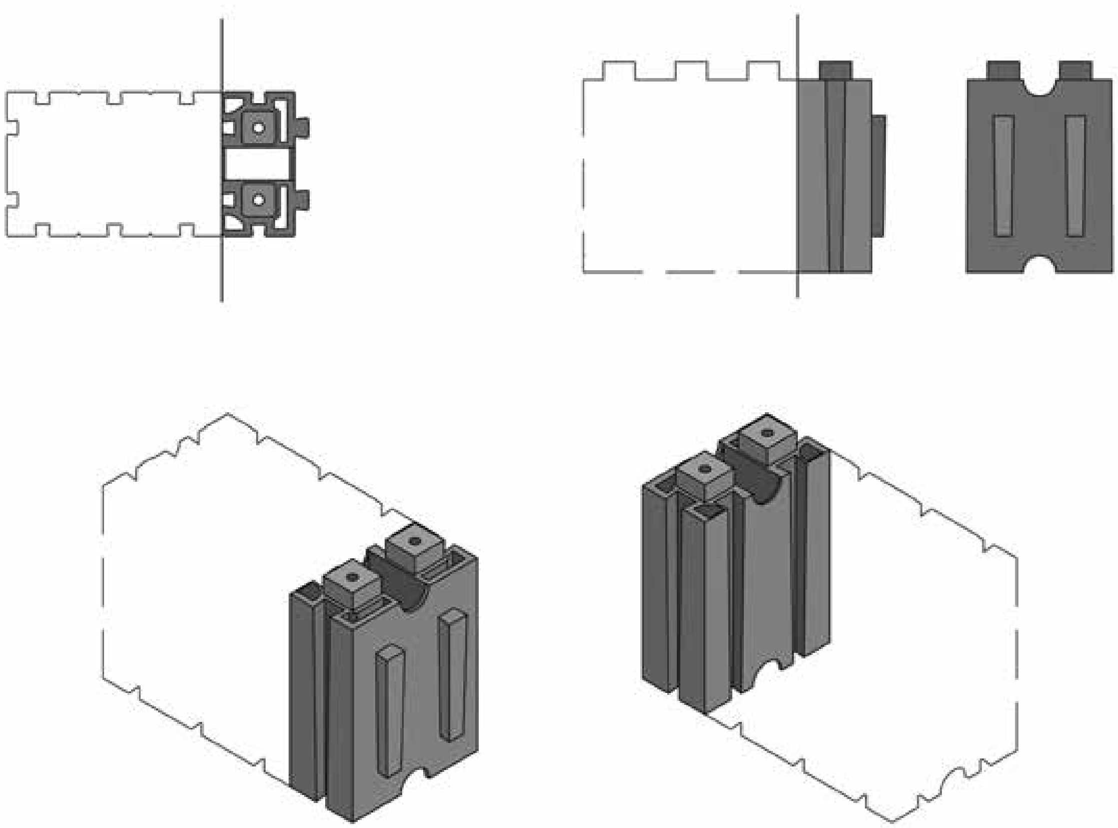
HALF BLOCK



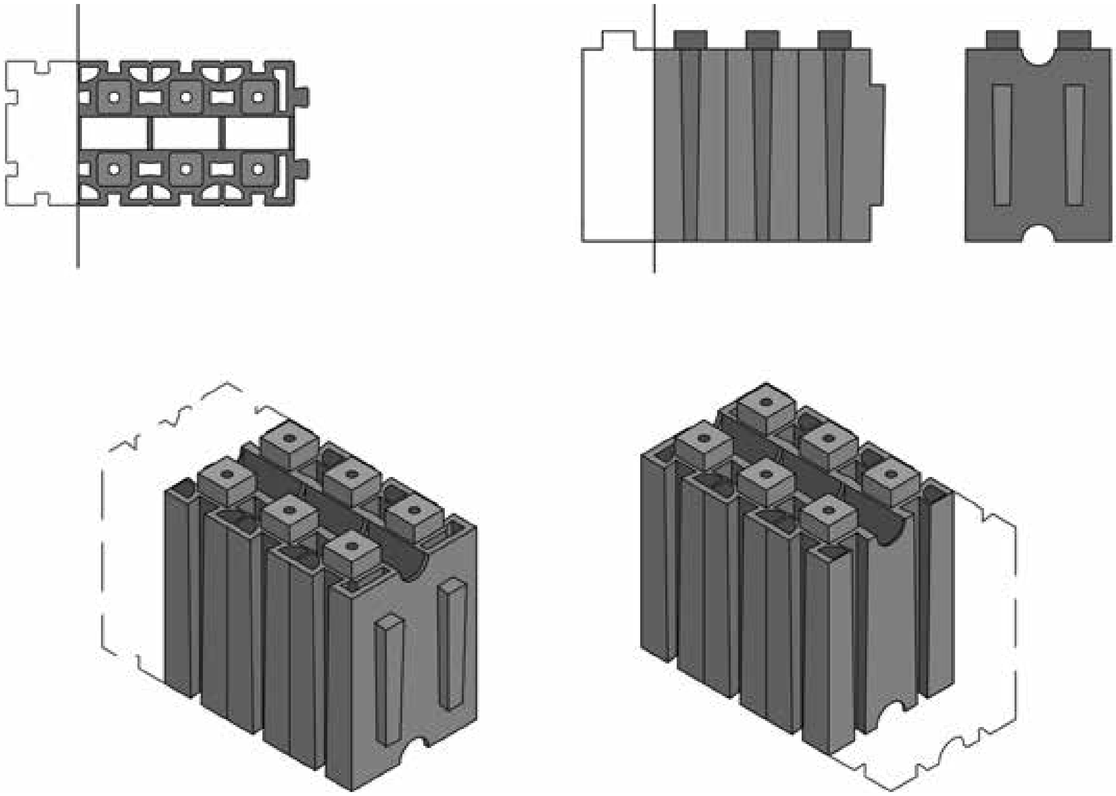
HALF BLOCK – DOUBLE FEMALE



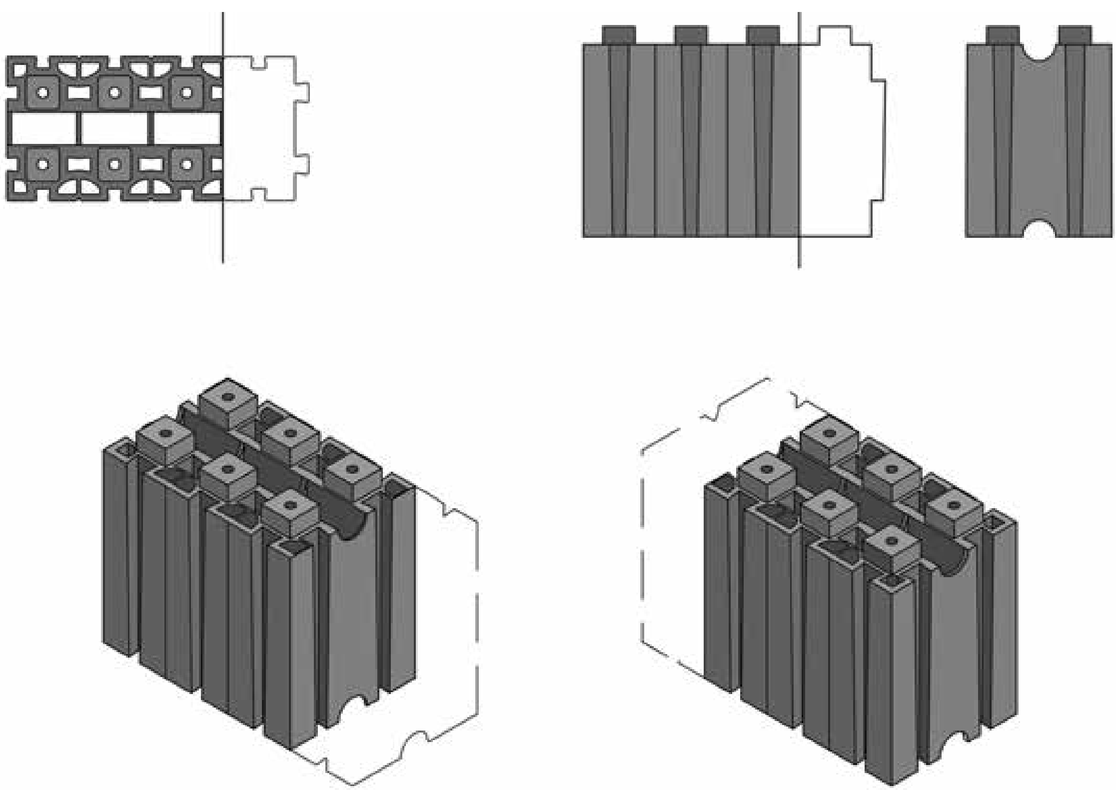
QUARTER BLOCK



QUARTER BLOCK – DOUBLE FEMALE



THREE-QUARTER BLOCK



THREE-QUARTER BLOCK – DOUBLE FEMALE

LOK–N–BLOK PROPERTIES

Description	Testing Standard	Result	Test Report
Block Prism Compression	ASTM C140	89.0 kips[3]	Block Prism Compression Test Report, November 16, 2021
Wall Out–of–Plane Flexure Peak Net Applied Pressure	ASTM E72	86.8 psf[4]	Wall Assembly Test Report, Out–of–Plane Flexural Test, November 5, 2021
Wall Out–of–Plane Flexure Net Applied Pressure at L/240	ASTM E72	31.5 psf[4]	Wall Assembly Test Report, Out–of–Plane Flexural Test, November 5, 2021
R–Value	ASTM C518	6.0[5]	Thermal Resistance Measurements According to ASTM C518, December 22, 2021
Load Testing of Home Show Booth	IBC, Section 1708, In–Situ Load Tests	Passed[7]	Load Test of Home Show Booth Mockup, September 10, 2019

Notes:

1. Details and design values provided herein are preliminary subject to the completion of testing except as noted above. The most current Design Guide version should be used for design and construction. The conceptual details and design procedure provided herein do not replace or otherwise alter the contractual responsibilities of the design and construction team members.
2. All testing performed by Wiss, Janney, Elstner Associates, Inc., except as noted.
3. Value is average of 10 samples. Refer to test report for details.
4. Wall clear span 107.25 inches, precompression of 1,574 pounds per lineal foot of wall.
5. R–Value is an average of 4 samples. Refer to test report for details.
6. Testing performed by R&D Services, Inc.
7. Test performed using design live load of 100 pounds per square foot.

LIMITATIONS ON USE OF DESIGN PROCEDURE

- The design procedure provided herein shall apply to the construction of exterior Lok–N–Blok walls for:
  - Detached one– and two–family dwellings, townhouses, and one–story commercial buildings assigned to Seismic Design Category A or B
  - Buildings not greater than 60 feet in plan dimensions
  - Buildings with mean roof height no greater than 33 feet or two stories in height above grade
  - Floors with clear spans not greater than 30 feet
  - Roofs with clear spans not greater than 60 feet
- Floor/ceiling dead loads shall not exceed 10 pounds per square foot.
- Roof/ceiling dead loads shall not exceed 15 pounds per square foot.
- Floor live loads shall not exceed 40 pounds per square foot.
- Attic live loads shall not exceed 20 pounds per square foot.
- Roof overhangs shall not exceed 2 feet of horizontal projection beyond the exterior wall and the dead load of overhangs shall not exceed 10 pounds per square foot.
- Ground snow load shall not exceed 70 pounds per square foot, provided that the building is not unheated, an open–air structure, or a freezer building.
- Wind loads have been determined in accordance with the 2018 Edition of the International Building Code (IBC) requirements for Allowable Stress Design.

DEFINITIONS

Basic Wind Speed: Three–second gust speed at 33 feet above the ground in Exposure C as determined in accordance with the International Building Code (IBC) for the building site.

Dead Load: The weight of the materials of construction incorporated into the building, including but not limited to walls, floors, roofs, ceilings, stairways, built–in partitions, finishes, cladding, and other similarly incorporated architectural and structural items, and fixed service equipment.

Enclosure Classification: To determine internal pressure coefficients, all buildings shall be classified as enclosed, partially enclosed, partially open, or open as defined in IBC.

Exposure Categories: For each wind direction considered, the upwind exposure shall be classified as Exposure B, C, or D in accordance with IBC based on ground surface roughness that is determined from natural topography, vegetation, and constructed facilities.

Exterior Endwall Line: The side of a building that is parallel to the span of the roof or floor framing.

Exterior Sidewall Line: The side of a building that is perpendicular to the span of the roof or floor framing.

Floor Joist: A horizontal structural framing member that supports floor load.

Foundation Wall: The structural element of a foundation that resists lateral soil loads, if any, and transmits the dead load of a structure and the loads and forces imposed on it to the footing, or directly to the soil or rock; includes basement, stem, and crawlspace walls.

Grade: The finished ground level adjoining the building at all exterior walls.

Grade Plane: A reference plane representing the average of the finished ground level adjoining the building at all exterior walls.

Ground Snow Load: The weight of the accumulated snow at the ground level of the building site as determined in accordance with IBC.

DEFINITIONS, CONT'D

IBC: The 2018 Edition of the International Building Code.

Ledger: A horizontal structural member fastened to the side of a wall to serve as a connection point for other structural members, typically floor joists.

Length of Solid Wall: The total length of solid wall segments required in each exterior endwall or sidewall line in each story.

Live Load: Those loads produced by the use and occupancy of the building or other structure and do not include construction or environmental loads such as wind load, snow load, rain load, earthquake load, flood load, or dead load.

Mean Roof Height: The average of the roof eave height and the height to the highest point on the roof surface, except that for roof angle of less than or equal to 10 degrees, the mean roof height is permitted to be taken as the roof eave height.

Narrow Wall Opening: A wall opening that has a maximum width 10 inches less than the maximum tension rod spacing, T_R.

Running Bond: The placement of Lok–N–Blok units such that the head joints in successive courses are horizontally offset one–half the unit length.

Seismic Design Category: A classification assigned to a structure per IBC based on its occupancy category and the severity of the design earthquake ground motion at a site.

Solid Wall Segments: Solid walls that contribute to the total length of solid wall shall be equal to or greater than 4 feet in length. The maximum spacing between segments is 10 feet. A solid wall segment shall be required at all interior (reentrant) and exterior corners of exterior walls.

Solid Wall: A section of flat wall, extending the full story height without openings or penetrations, other than for utilities and other building services passing through the wall. Such openings shall have an area of less than 30 inches without any dimension exceeding 6 inches and shall not be located within 12 inches of the side edges of the solid wall segment.

Stack Bond: The placement of Lok–N–Blok units in a bond pattern such that the head joints in successive courses are vertically aligned.

Story: That portion of the building between the upper surface of a floor and the upper surface of the floor or roof next above.

Story Above Grade Plane: Any story with its finished floor surface entirely above grade plane except that a basement shall be considered as a story above grade plane where the finished surface of the floor above the basement is (a) more than 6 feet above the grade plane, or (b) more than 12 feet above the finished ground level at any point.

Story Height: The vertical distance from top to top of two successive tiers of beams or finished floor surfaces; and, for the topmost story, from the top of the floor finish to the top of the ceiling joists.

Wall Design Precompression Load, P_D: The linear, vertical precompression load required in a Lok–N–Blok wall to resist wind out–of–plane and uplift loads simultaneously.

Wall Net Precompression Load, P_N: The linear, vertical precompression load required in a Lok–N–Blok wall to resist out–of–plane loads acting on the wall.

DEFINITIONS, CONT'D

Wide Wall Opening: A wall opening that does not comply with the requirements for a narrow wall opening.

Wind Design Uplift Load, U_D: The linear, vertical uplift load acting on the wall top plate due to wind loads prescribed in IBC.

SYMBOLS

Symbol	Definition
P_N	Wall net precompression load (lb/ft), see **Table 1, Wall Net Compression Load**
U_{120}	Typical wind uplift load (lb/ft) based upon a 120 mph design wind speed and Exposure Category B, see **Table 2, Table 2, Wind Uplift Load**
AF_w	Wind uplift adjustment factor for various wind speeds and exposure categories, see **Table 3, Wind Uplift Adjustment Factor**
U_D	Wind design uplift load (lb/ft)
P_D	Wall design precompression load (lb/ft)
s_R	Maximum tension rod spacing (blocks, ft–in)
T_R	Rod design tension (lb), see **Table 4, Rod Design Tension**
h_{so}	Uncompressed spring height (in), see **Table 5, Spring Size and Properties**
K_s	Spring constant (lb/in), see **Table 5, Spring Size and Properties**
P_{sm}	Spring maximum compression load at maximum compression length (lb), see **Table 5, Spring Size and Properties**
L_{sm}	Spring maximum compression length (in), see **Table 5, Spring Size and Properties**
d_{so}	Spring outer diameter (in), see Table 5, Spring Size and Properties
h_{pa}	Height of wall precompression assembly (in)
h_{si}	Compressed spring height for installation (in), see **Table 6, Spring Type 1 Installation Height, Table 7, Spring Type 2 Installation Height**, and **Table 8, Spring Type 3 Installation Height**
h	Vertical distance from grade plane to the average height of the highest roof surface (ft)
L_W	Total length of solid wall segments required (ft)
L_S	Length of a sidewall (ft)
L_E	Length of an endwall (ft)

MATERIAL SPECIFICATIONS

- Lok–N–Blok construction blocks
- Tension rods
  - Grade 50 steel or better
  - 3/4 inch diameter
  - Threaded full–length, 10 threads per inch
  - 5 foot lengths suggested for constructability, but any length rods acceptable
- Tension rod couplers
  - Match tension rods for size and strength
- Steel nuts
  - Match threaded rod for size and strength
- Thrust washers
  - One–piece steel thrust ball bearing
  - For 3/4 inch shaft diameter
  - Static load capacity for maximum rod/spring/anchor load
- Compression springs
  - Steel, ground flush both ends
  - Inner diameter larger than threaded rod
  - For uncompressed height, outer diameter, stiffness (spring constant), and maximum compression properties, see Table 5, Spring Size and Properties
- Steel bearing plates
  - 3/8 inch thick
  - A36 steel or better
  - Holes for tension rods to be centered in bearing plates
  - Hole diameter = tension rod diameter + 1/16 inch
  - Length and width per Table 5, Spring Size and Properties
- Concrete anchors
  - Expansion, undercut, or cast–in–place concrete anchor with threaded rod extension that can be coupled to threaded tension rod
  - Post–installed adhesive concrete anchors not permitted
  - Designed by EOR for maximum rod/spring/anchor load
- Wood top plates
  - 2x6 nominal size, surfaced four sides
  - Minimum 8 foot length, 10 foot length recommended for triple top plate with 4–block tension rod spacing
  - No. 2 grade or better
  - Douglas Fir–Larch, Southern Pine, Spruce–Pine–Fir, or Hem–Fir
  - Diameter of holes for tension rods = tension rod diameter + 1/4 inch
- Wood ledgers
  - 2x10 or 2x12 nominal size, surfaced four sides
  - Minimum 8 foot lengths
  - No. 2 grade or better
  - Douglas Fir–Larch, Southern Pine, Spruce–Pine–Fir, or Hem–Fir
- Ledger fasteners
  - Simpson Strong–Tie Strong–Drive® SDWS FRAMING Screw, 4 inch length (SDWS16400)

DESIGN PROCEDURE

1. Establish building plan, wall heights, and roof geometry.

2. Determine the following:

   a. Building exposure category

   b. Design wind speed

   c. Ground snow load

   d. Seismic design category

	Wall 1	Wall 2
For each exterior wall, perform the following design steps:		
3. Determine the wall net precompression load, P_N, from **Table 1, Wall Net Compression Load**.		
4. Determine the wind design uplift load, U_D.		
a. Determine the typical wind uplift load, U_{120}, from **Table 2, Wind Uplift Load**.		
b. Determine the adjustment factor AF_W from **Table 3, Wind Uplift Adjustment Factor**.		
c. Calculate the wind design uplift load: $U_D=U_{120} \times AF_W$ (U_D currently limited to 2000 lb/ft).		
5. Calculate the wall design precompression load: $P_D= P_N+ U_D$.		
6. Select the maximum tension rod spacing, s_R.		
7. Determine the rod design tension, T_R, from **Table 4, Rod Design Tension.**		
8. Select the spring type and properties (h_{so}, K_s, P_{sm}) from **Table 5, Spring Size and Properties**.		
9. Determine the required bearing plate size from **Table 5, Spring Size and Properties**.		
10. Calculate the height of wall precompression assembly: $h_{pa}= h_{so}+4$ inches.		
11. Determine the spring installation height, h_{si}, from **Table 6, Spring Type 1 Installation Height, Table 7, Spring Type 2 Installation Height,** or **Table 8, Spring Type 3 Installation Height**, depending on the selected spring size.		
a. Determine the required top of wall detail from **Table 9, Top of Wall Detail.**		
12. For detail HW–B, determine number of strap fasteners from **Table 10**.		
13. Provide concrete anchors capable of resisting the rod design tension, T_R.		
14. Determine the ledger board fastener requirements for end walls and side walls from **Table 11, Number of Ledger Fasteners per Block**.		
15. Determine the required length of solid wall, L_W, from Table 12.		
16. Establish the location and size of solid wall segments and wall openings. Wide wall openings are currently not permitted. The total length of solid wall segments shall be at least the required length of solid wall, L_W.		

For each exterior wall, perform the following design steps:

Step	Wall 3	Wall 4
3. Determine the wall net precompression load, P_N, from **Table 1, Wall Net Compression Load**.		
4. Determine the wind design uplift load, U_D.		
a. Determine the typical wind uplift load, U_{120}, from **Table 2, Wind Uplift Load**.		
b. Determine the adjustment factor AF_W from **Table 3, Wind Uplift Adjustment Factor**.		
c. Calculate the wind design uplift load: $U_D = U_{120} \times AF_W$ (U_D currently limited to 2000 lb/ft).		
5. Calculate the wall design precompression load: $P_D = P_N + U_D$.		
6. Select the maximum tension rod spacing, s_R.		
7. Determine the rod design tension, T_R, from **Table 4, Rod Design Tension**.		
8. Select the spring type and properties (h_{so}, K_s, P_{sm}) from **Table 5, Spring Size and Properties**.		
9. Determine the required bearing plate size from **Table 5, Spring Size and Properties**.		
10. Calculate the height of wall precompression assembly: $h_{pa} = h_{so} + 4$ inches.		
11. Determine the spring installation height, h_{si}, from **Table 6, Spring Type 1 Installation Height, Table 7, Spring Type 2 Installation Height,** or **Table 8, Spring Type 3 Installation Height**, depending on the selected spring size.		
a. Determine the required top of wall detail from **Table 9, Top of Wall Detail.**		
12. For detail HW–B, determine number of strap fasteners from **Table 10**.		
13. Provide concrete anchors capable of resisting the rod design tension, T_R.		
14. Determine the ledger board fastener requirements for end walls and side walls from **Table 11, Number of Ledger Fasteners per Block**.		
15. Determine the required length of solid wall, L_W, from Table 12.		
16. Establish the location and size of solid wall segments and wall openings. Wide wall openings are currently not permitted. The total length of solid wall segments shall be at least the required length of solid wall, L_W.		

Wall ___ Wall ___

For each exterior wall, perform the following design steps:

3. Determine the wall net precompression load, P_N, from **Table 1, Wall Net Compression Load**.
4. Determine the wind design uplift load, U_D.
   a. Determine the typical wind uplift load, U_{120}, from **Table 2, Wind Uplift Load**.
   b. Determine the adjustment factor AF_W from **Table 3, Wind Uplift Adjustment Factor**.
   c. Calculate the wind design uplift load: $U_D = U_{120} \times AF_W$ (U_D currently limited to 2000 lb/ft).
5. Calculate the wall design precompression load: $P_D = P_N + U_D$.
6. Select the maximum tension rod spacing, s_R.
7. Determine the rod design tension, T_R, from **Table 4, Rod Design Tension**.
8. Select the spring type and properties (h_{so}, K_s, P_{sm}) from **Table 5, Spring Size and Properties**.
9. Determine the required bearing plate size from **Table 5, Spring Size and Properties**.
10. Calculate the height of wall precompression assembly: $h_{pa} = h_{so} + 4$ inches.
11. Determine the spring installation height, h_{si}, from **Table 6, Spring Type 1 Installation Height, Table 7, Spring Type 2 Installation Height,** or **Table 8, Spring Type 3 Installation Height**, depending on the selected spring size.
    a. Determine the required top of wall detail from **Table 9, Top of Wall Detail.**
12. For detail HW–B, determine number of strap fasteners from **Table 10**.
13. Provide concrete anchors capable of resisting the rod design tension, T_R.
14. Determine the ledger board fastener requirements for end walls and side walls from **Table 11, Number of Ledger Fasteners per Block**.
15. Determine the required length of solid wall, L_W, from Table 12.
16. Establish the location and size of solid wall segments and wall openings. Wide wall openings are currently not permitted. The total length of solid wall segments shall be at least the required length of solid wall, L_W.

TABLE 1, WALL NET COMPRESSION LOAD (P_N, LB/FT)

Exposure Category	Design Wind Speed (mph)	Story Height (ft)				
		8	9	10	11	12
B	110	1000	1000	1000	1000	1000
	120	1000	1000	1000	1000	Note 2
	130	1000	1000	1000	1000	
	140	1000	1000	1000	1000	
	150	1000	1000	1000		
	160	1000	1000	1000		
	170	1000	1000	1000		
	180	1000	1000			
C	110	1000	1000	1000	1000	
	120	1000	1000	1000	1000	
	130	1000	1000	1000		
	140	1000	1000	1000		
	150	1000	1000			
	160	1000	1000			
	170	1000	1000			
	180	1000	1000			
D	110	1000	1000	1000	1000	
	120	1000	1000	1000		
	130	1000	1000	1000		
	140	1000	1000			
	150	1000	1000			
	160	1000	1000			
	170	1000				
	180	1000				

Notes:

1. Values based on out–of–plane wall testing, subject to L/240 deflection limit per IBC.
2. Pending testing.

TABLE 2, WIND UPLIFT LOAD APPLIED TO WALL TOP PLATE (U_{120}, LB/FT)

Roof Span (ft)	h/L		
	≤ 0.50	0.75	≥ 1.00
15	300	300	400
20	400	400	500
25	400	500	600
30	500	600	700
40	700	800	900
50	800	1000	1100
60	1000	1200	1300

Notes:

1. Roof pitch limited to 6:12.
2. L shall be the lesser of L_S and L_E.
3. IBC wind load parameters:
   a. Ground elevation factor, $K_e = 1.00$
   a. Topographic factor, $K_{zt} = 1.00$

TABLE 3, WIND UPLIFT ADJUSTMENT FACTOR (AF_W)

Design Wind Speed (mph)	Exposure Category		
	B	C	D
110	0.60	0.84	0.99
120	0.71	1.00	1.18
130	0.84	1.17	1.39
140	0.97	1.36	1.61
150	1.12	1.56	1.85
160	1.27	1.78	2.10
170	1.43	2.01	2.38
180	1.61	2.25	2.66

TABLE 4, ROD DESIGN TENSION (T_R, LB)

Wall Design Compression Load (P_D, lb/ft)	Tension Rod Spacing (s_R, blocks)				
	2	2–1/2	3	3–1/2	4
1000	2100	2600	3100	3600	4100
1100	2300	2800	3400	3900	4500
1200	2500	3100	3700	4300	4900
1300	2700	3300	4000	4600	5300
1400	2900	3600	4300	5000	5700
1500	3100	3800	4600	5400	6100
1600	3300	4100	4900	5700	6500
1700	3500	4300	5200	6100	6900
1800	3700	4600	5500	6400	7300
1900	3900	4800	5800	6800	7700
2000	4100	5100	6100	7100	8100
2100	4300	5400	6400	7500	8500
2200	4500	5600	6700	7800	8900
2300	4700	5900	7000	8200	9300
2400	4900	6100	7300	8500	9700
2500	5100	6400	7600	8900	Note 1
2600	5300	6600	7900	9200	Note 1
2700	5500	6900	8200	9600	Note 1
2800	5700	7100	8500	10000	Note 1
2900	5900	7400	8800	Note 1	Note 1
3000	6100	7600	9100	Note 1	Note 1

Notes:

1. Maximum indicated rod tension based on spring size and properties.

TABLE 5, SPRING SIZE AND PROPERTIES

Spring Type	1	2	3
Uncompressed Spring Height (h_{so}, in)	8	10	12
Spring Constant (K_s, lb/in)	3000	2666	2500
Maximum Compression Load (P_{sm}, lb)	6000	8000	10000
Maximum Compression Length (L_{sm}, in)	2	3	4
Spring Outer Diameter (d_{so}, in)	2–3/4	3–3/4	4–3/4
Bearing Plate Length and Width (in)	4	4–1/2	5

TABLE 6, SPRING TYPE 1 INSTALLATION HEIGHT (H_{SI}, IN)

Rod Design Tension (T_R, lb)	Total Wall Height (ft)								
	8	10	12	14	16	18	20	22	24
2000	6–3/4	6–5/8	6–1/2	6–3/8	6–1/4	6–1/4	6–1/8	6	NP
2100	6–3/4	6–5/8	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP
2200	6–3/4	6–5/8	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP
2300	6–3/4	6–5/8	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP
2400	6–5/8	6–1/2	6–3/8	6–1/4	6–1/8	6	6	NP	NP
2500	6–5/8	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP	NP
2600	6–5/8	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP	NP
2700	6–1/2	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP	NP
2800	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP	NP	NP
2900	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP	NP	NP
3000	6–1/2	6–3/8	6–1/4	6–1/8	6	NP	NP	NP	NP
3100	6–3/8	6–1/4	6–1/8	6–1/8	6	NP	NP	NP	NP
3200	6–3/8	6–1/4	6–1/8	6	NP	NP	NP	NP	NP
3300	6–3/8	6–1/4	6–1/8	6	NP	NP	NP	NP	NP
3400	6–3/8	6–1/4	6–1/8	6	NP	NP	NP	NP	NP
3500	6–1/4	6–1/8	6	NP	NP	NP	NP	NP	NP
3600	6–1/4	6–1/8	6	NP	NP	NP	NP	NP	NP
3700	6–1/4	6–1/8	6	NP	NP	NP	NP	NP	NP

Rod Design Tension (T_R, lb)	Total Wall Height (ft)								
	8	10	12	14	16	18	20	22	24
3800	6–1/4	6–1/8	6	NP	NP	NP	NP	NP	NP
3900	6–1/8	6	NP	NP	NP	NP	NP	NP	NP
4000	6–1/8	6	NP	NP	NP	NP	NP	NP	NP
4100	6–1/8	6	NP	NP	NP	NP	NP	NP	NP
4200	6	6	NP	NP	NP	NP	NP	NP	NP
4300	6	NP	NP	NP	NP	NP	NP	NP	NP
4400	6	NP	NP	NP	NP	NP	NP	NP	NP
4500	6	NP	NP	NP	NP	NP	NP	NP	NP
>4500	NP	NP	NP	NP	NP	NP	NP	NP	NP

TABLE 7, SPRING TYPE 2 INSTALLATION HEIGHT (H_{SI}, IN)

Rod Design Tension (T_R, lb)	Total Wall Height (ft)								
	8	10	12	14	16	18	20	22	24
2000	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4
2100	8–5/8	8–1/2	8–3/8	8–1/4	8–1/4	8–1/8	8	7–7/8	7–3/4
2200	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8
2300	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8
2400	8–1/2	8–3/8	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8
2500	8–1/2	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2
2600	8–1/2	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2
2700	8–1/2	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2
2800	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8	7–5/8	7–1/2
2900	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8
3000	8–3/8	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8
3100	8–1/4	8–1/8	8–	7–7/8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8
3200	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4
3300	8–1/4	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4
3400	8–1/8	8	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4

Rod Design Tension (T_R, lb)	Total Wall Height (ft)								
	8	10	12	14	16	18	20	22	24
3500	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8
3600	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8
3700	8–1/8	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8
3800	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/4	7–1/8
3900	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7
4000	8	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7
4100	7–7/8	7–3/4	7–5/8	7–1/2	7–1/2	7–3/8	7–1/4	7–1/8	7
4200	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP
4300	7–7/8	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP
4400	7–3/4	7–5/8	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP
4500	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP	NP
4600	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP	NP
4700	7–3/4	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP	NP
4800	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP	NP	NP
4900	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP	NP	NP
5000	7–5/8	7–1/2	7–3/8	7–1/4	7–1/8	7	NP	NP	NP
5100	7–1/2	7–3/8	7–1/4	7–1/8	7–1/8	7	NP	NP	NP
5200	7–1/2	7–3/8	7–1/4	7–1/8	7	NP	NP	NP	NP
5300	7–1/2	7–3/8	7–1/4	7–1/8	7	NP	NP	NP	NP
5400	7–3/8	7–1/4	7–1/4	7–1/8	7	NP	NP	NP	NP
5500	7–3/8	7–1/4	7–1/8	7	NP	NP	NP	NP	NP
5600	7–3/8	7–1/4	7–1/8	7	NP	NP	NP	NP	NP
5700	7–3/8	7–1/4	7–1/8	7	NP	NP	NP	NP	NP
5800	7–1/4	7–1/8	7	NP	NP	NP	NP	NP	NP
5900	7–1/4	7–1/8	7	NP	NP	NP	NP	NP	NP
6000	7–1/4	7–1/8	7	NP	NP	NP	NP	NP	NP
6100	7–1/8	7	NP	NP	NP	NP	NP	NP	NP
6200	7–1/8	7	NP	NP	NP	NP	NP	NP	NP
6300	7–1/8	7	NP	NP	NP	NP	NP	NP	NP
6400	7	NP	NP	NP	NP	NP	NP	NP	NP
6500	7	NP	NP	NP	NP	NP	NP	NP	NP

Rod Design Tension (T_R, lb)	Total Wall Height (ft)								
	8	10	12	14	16	18	20	22	24
6600	7	NP	NP	NP	NP	NP	NP	NP	NP
6700	7	NP	NP	NP	NP	NP	NP	NP	NP
>6700	NP	NP	NP	NP	NP	NP	NP	NP	NP

TABLE 8, SPRING TYPE 3 INSTALLATION HEIGHT (H_{SI}, IN)

Rod Design Tension (T_R, lb)	Total Wall Height (ft)								
	8	10	12	14	16	18	20	22	24
2000	10–5/8	10–1/2	10–3/8	10–1/4	10–1/8	10	10	9–7/8	9–3/4
2100	10–5/8	10–1/2	10–3/8	10–1/4	10–1/8	10	9–7/8	9–3/4	9–5/8
2200	10–5/8	10–1/2	10–3/8	10–1/4	10–1/8	10	9–7/8	9–3/4	9–5/8
2300	10–1/2	10–3/8	10–1/4	10–1/8	10	10	9–7/8	9–3/4	9–5/8
2400	10–1/2	10–3/8	10–1/4	10–1/8	10	9–7/8	9–3/4	9–5/8	9–1/2
2500	10–1/2	10–3/8	10–1/4	10–1/8	10	9–7/8	9–3/4	9–5/8	9–1/2
2600	10–3/8	10–1/4	10–1/8	10	10	9–7/8	9–3/4	9–5/8	9–1/2
2700	10–3/8	10–1/4	10–1/8	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8
2800	10–3/8	10–1/4	10–1/8	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8
2900	10–1/4	10–1/8	10	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8
3000	10–1/4	10–1/8	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4
3100	10–1/4	10–1/8	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4
3200	10–1/8	10	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4
3300	10–1/8	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8
3400	10–1/8	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8
3500	10	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8
3600	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9
3700	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9
3800	10	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9
3900	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	9
4000	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	8–7/8

Rod Design Tension (T_R, lb)	Total Wall Height (ft)								
	8	10	12	14	16	18	20	22	24
4100	9–7/8	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	8–7/8
4200	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	9	8–7/8
4300	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	8–7/8	8–3/4
4400	9–3/4	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	8–7/8	8–3/4
4500	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	9	8–7/8	8–3/4
4600	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	8–7/8	8–3/4	8–5/8
4700	9–5/8	9–1/2	9–3/8	9–1/4	9–1/8	9	8–7/8	8–3/4	8–5/8
4800	9–1/2	9–3/8	9–1/4	9–1/8	9	9	8–7/8	8–3/4	8–5/8
4900	9–1/2	9–3/8	9–1/4	9–1/8	9	8–7/8	8–3/4	8–5/8	8–1/2
5000	9–1/2	9–3/8	9–1/4	9–1/8	9	8–7/8	8–3/4	8–5/8	8–1/2
5100	9–3/8	9–1/4	9–1/8	9	9	8–7/8	8–3/4	8–5/8	8–1/2
5200	9–3/8	9–1/4	9–1/8	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8
5300	9–3/8	9–1/4	9–1/8	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8
5400	9–1/4	9–1/8	9	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8
5500	9–1/4	9–1/8	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4
5600	9–1/4	9–1/8	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4
5700	9–1/8	9	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4
5800	9–1/8	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8
5900	9–1/8	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8
6000	9	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8
6100	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8
6200	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8
6300	9	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8
6400	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	8
6500	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	NP
6600	8–7/8	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	NP
6700	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	8	NP
6800	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	NP	NP
6900	8–3/4	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	NP	NP
7000	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	8	NP	NP
7100	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	NP	NP	NP

Rod Design Tension (T_R, lb)	Total Wall Height (ft)								
	8	10	12	14	16	18	20	22	24
7200	8–5/8	8–1/2	8–3/8	8–1/4	8–1/8	8	NP	NP	NP
7300	8–1/2	8–3/8	8–1/4	8–1/8	8	8	NP	NP	NP
7400	8–1/2	8–3/8	8–1/4	8–1/8	8	NP	NP	NP	NP
7500	8–1/2	8–3/8	8–1/4	8–1/8	8	NP	NP	NP	NP
7600	8–3/8	8–1/4	8–1/8	8	8	NP	NP	NP	NP
7700	8–3/8	8–1/4	8–1/8	8	NP	NP	NP	NP	NP
7800	8–3/8	8–1/4	8–1/8	8	NP	NP	NP	NP	NP
7900	8–1/4	8–1/8	8	8	NP	NP	NP	NP	NP
8000	8–1/4	8–1/8	8	NP	NP	NP	NP	NP	NP
8100	8–1/4	8–1/8	8	NP	NP	NP	NP	NP	NP
8200	8–1/8	8	8	NP	NP	NP	NP	NP	NP
8300	8–1/8	8	NP	NP	NP	NP	NP	NP	NP
8400	8–1/8	8	NP	NP	NP	NP	NP	NP	NP
8500	8	8	NP	NP	NP	NP	NP	NP	NP
8600	8	NP	NP	NP	NP	NP	NP	NP	NP
8700	8	NP	NP	NP	NP	NP	NP	NP	NP
8800	8	NP	NP	NP	NP	NP	NP	NP	NP
>8800	NP	NP	NP	NP	NP	NP	NP	NP	NP

Notes:

1. Wall deformation due to long–term creep and temperature shrinkage of Lok–N–Blok wall estimated to be 0.5%.
2. NP = not permitted for spring size

TABLE 9, TOP PLATE DESIGN DETAIL

Wind Design Uplift Load (U_D, lb/ft)	Tension Rod Spacing (s_R, blocks)				
	2	2–1/2	3	3–1/2	4
300	TYP	TYP	TYP	TYP	TYP
400	TYP	TYP	TYP	TYP	TYP
500	TYP	TYP	TYP	HW–A	HW–A
600	TYP	TYP	HW–A	HW–A	HW–A
700	TYP	TYP	HW–A	HW–A	HW–A
800	TYP	HW–A	HW–A	HW–A	HW–A
900	TYP	HW–A	HW–A	HW–A	HW–B
1000	HW–A	HW–A	HW–A	HW–B	HW–B
1100	HW–A	HW–A	HW–A	HW–B	HW–B
1200	HW–A	HW–A	HW–B	HW–B	HW–B
1300	HW–A	HW–A	HW–B	HW–B	HW–B
1400	HW–A	HW–A	HW–B	HW–B	HW–B
1500	HW–A	HW–B	HW–B	HW–B	HW–B
1600	HW–A	HW–B	HW–B	HW–B	HW–B
1700	HW–A	HW–B	HW–B	HW–B	HW–B
1800	HW–A	HW–B	HW–B	HW–B	HW–B
1900	HW–B	HW–B	HW–B	HW–B	HW–B
2000	HW–B	HW–B	HW–B	HW–B	HW–B

Notes:

1. TYP refers to Top of Wall Typical Details.
2. HW–A refers to Top of Wall High Wind A Details.
3. HW–B refers to Top of Wall High Wind B Details (under development).
4. HW–B may be used anywhere that HW–A is required.

TABLE 11, LEDGER FASTENERS PER BLOCK

Side Wall Length (ft)	End Wall Length (ft)	Side Wall	End Wall
10	10	4	2
	20	4	3
	30	6	3
	40	6	4
	50	7	5
	60	7	5
20	10	4	2
	20	4	2
	30	5	2
	40	5	3
	50	5	3
	60	6	3
30	10	4	2
	20	4	2
	30	5	2
	40	5	2
	50	5	2
	60	5	3
40	10	4	2
	20	4	2
	30	4	2
	40	5	2
	50	5	2
	60	5	2
50	10	4	2
	20	4	2
	30	4	2
	40	4	2
	50	5	2
	60	5	2

Side Wall Length (ft)	End Wall Length (ft)	Side Wall	End Wall
60	10	4	2
	20	4	2
	30	4	2
	40	4	2
	50	4	2
	60	5	2

Notes:

1. Allowable fastener capacities for Simpson Strong–Tie Strong–Drive® SDWS FRAMING Screw, 4–inch length (SDWS16400)

TABLE 12, LENGTH OF SOLID WALLS

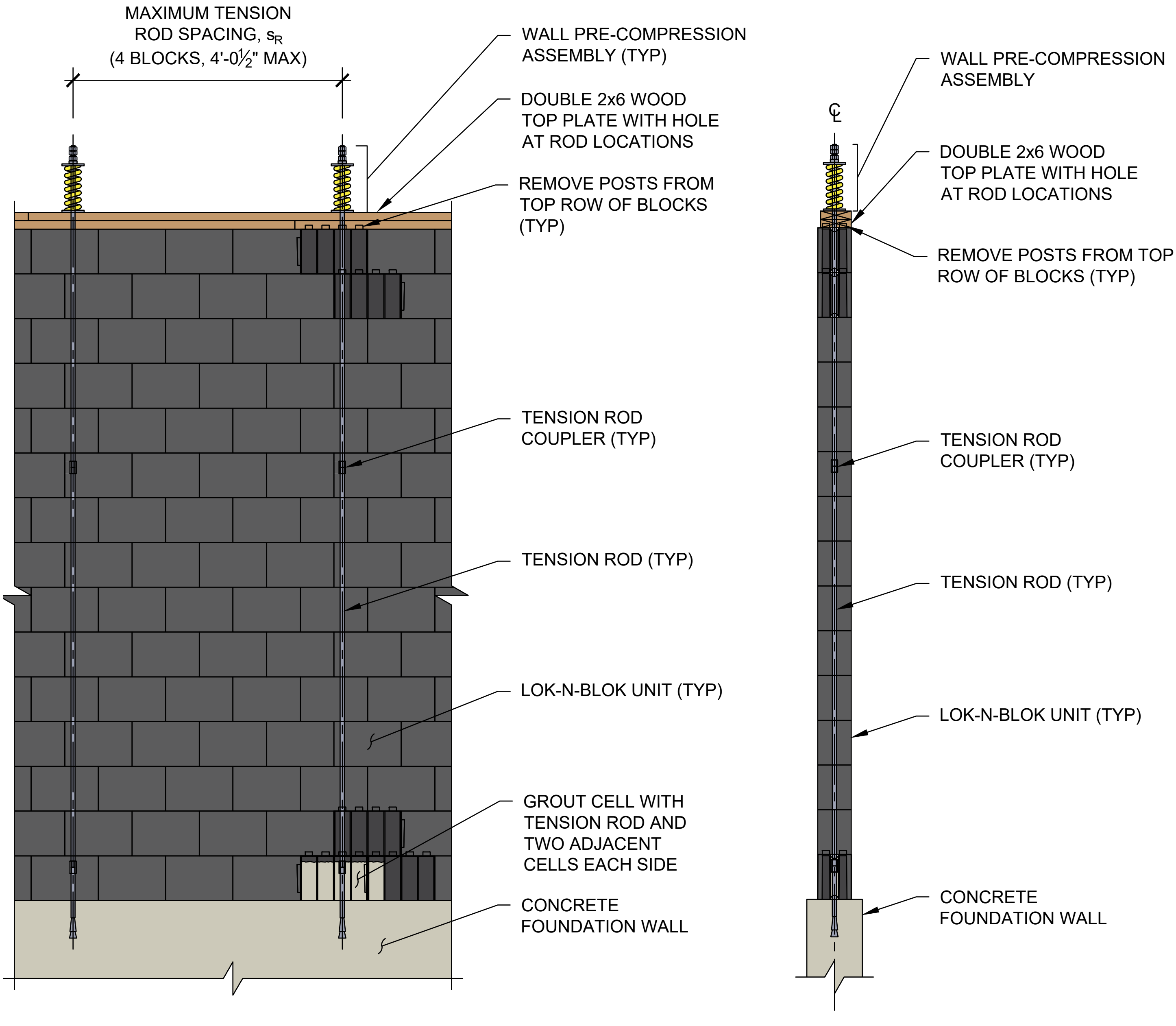
Story Location				
End Wall Length (ft)	**Sidewall Length (ft)**	**Minimum L1 (ft)**	**Minimum L2 (ft)**	**Minimum L3 (ft)**
10	10	Note 1	Note 1	Note 1
	20	Note 1	Note 1	Note 1
	30	Note 1	Note 1	Note 1
	40	Note 1	Note 1	Note 1
	50	Note 1	Note 1	Note 1
	60	Note 1	Note 1	Note 1
20	10	Note 1	Note 1	Note 1
	20	Note 1	Note 1	Note 1
	30	Note 1	Note 1	Note 1
	40	Note 1	Note 1	Note 1
	50	Note 1	Note 1	Note 1
	60	Note 1	Note 1	Note 1
30	10	Note 1	Note 1	Note 1
	20	Note 1	Note 1	Note 1
	30	Note 1	Note 1	Note 1
	40	Note 1	Note 1	Note 1
	50	Note 1	Note 1	Note 1
	60	Note 1	Note 1	Note 1

Story Location				
End Wall Length (ft)	Sidewall Length (ft)	Minimum L1 (ft)	Minimum L2 (ft)	Minimum L3 (ft)
40	10	Note 1	Note 1	Note 1
	20	Note 1	Note 1	Note 1
	30	Note 1	Note 1	Note 1
	40	Note 1	Note 1	Note 1
	50	Note 1	Note 1	Note 1
	60	Note 1	Note 1	Note 1
50	10	Note 1	Note 1	Note 1
	20	Note 1	Note 1	Note 1
	30	Note 1	Note 1	Note 1
	40	Note 1	Note 1	Note 1
	50	Note 1	Note 1	Note 1
	60	Note 1	Note 1	Note 1
60	10	Note 1	Note 1	Note 1
	20	Note 1	Note 1	Note 1
	30	Note 1	Note 1	Note 1
	40	Note 1	Note 1	Note 1
	50	Note 1	Note 1	Note 1
	60	Note 1	Note 1	Note 1

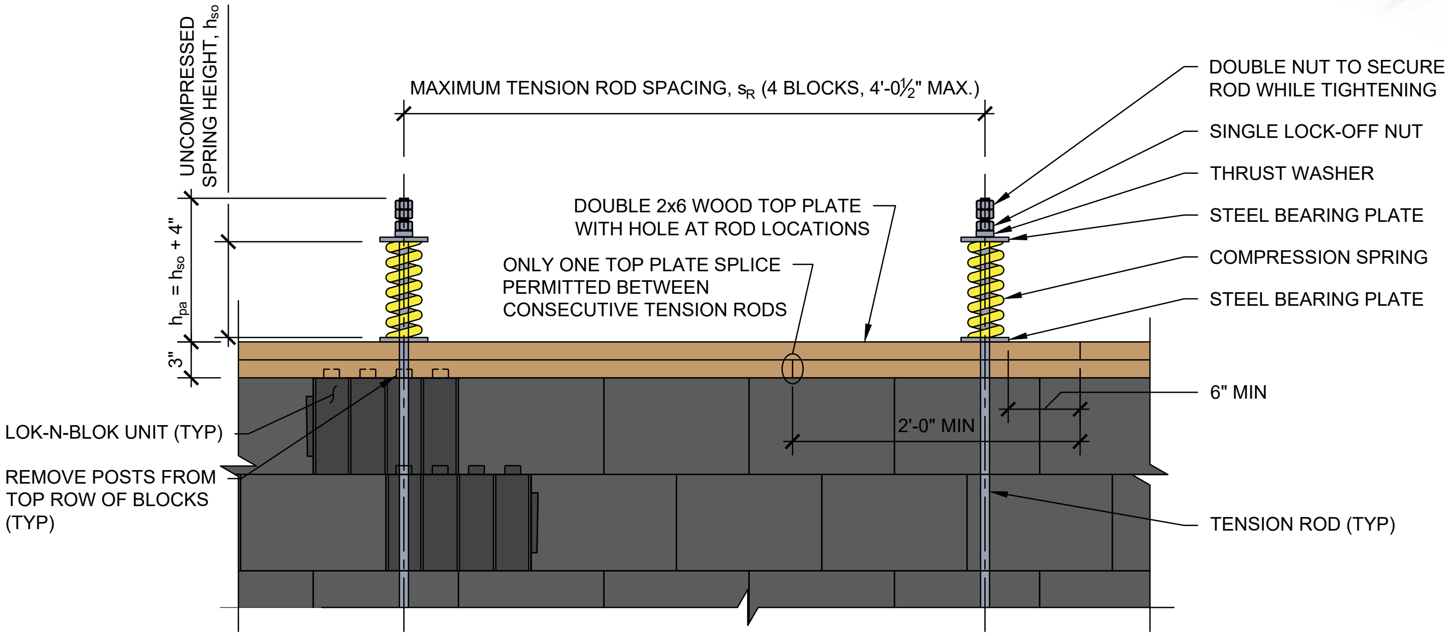
Notes:

1. Design values in development.

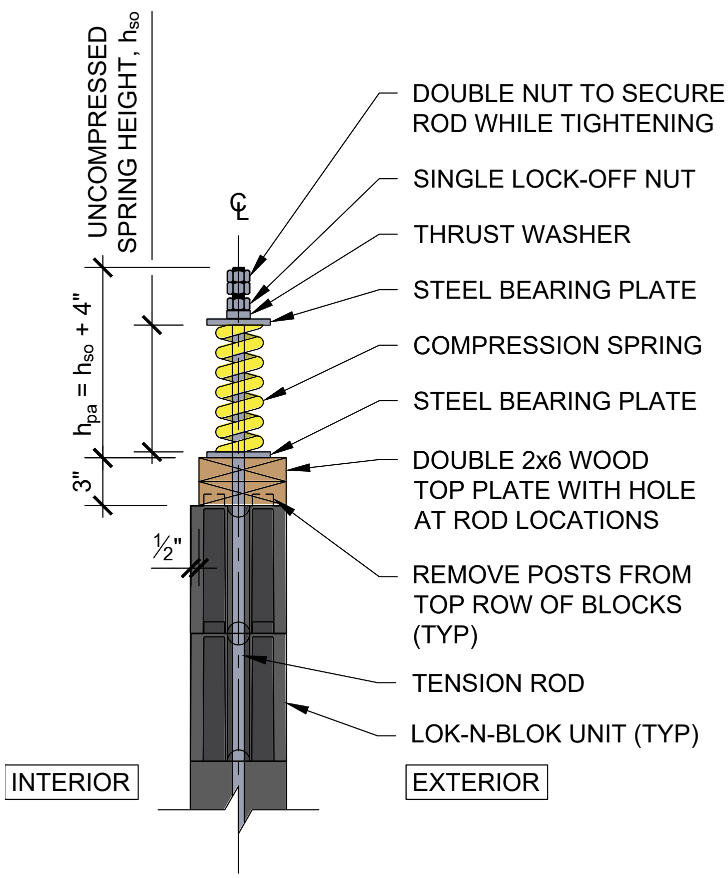
DETAILS



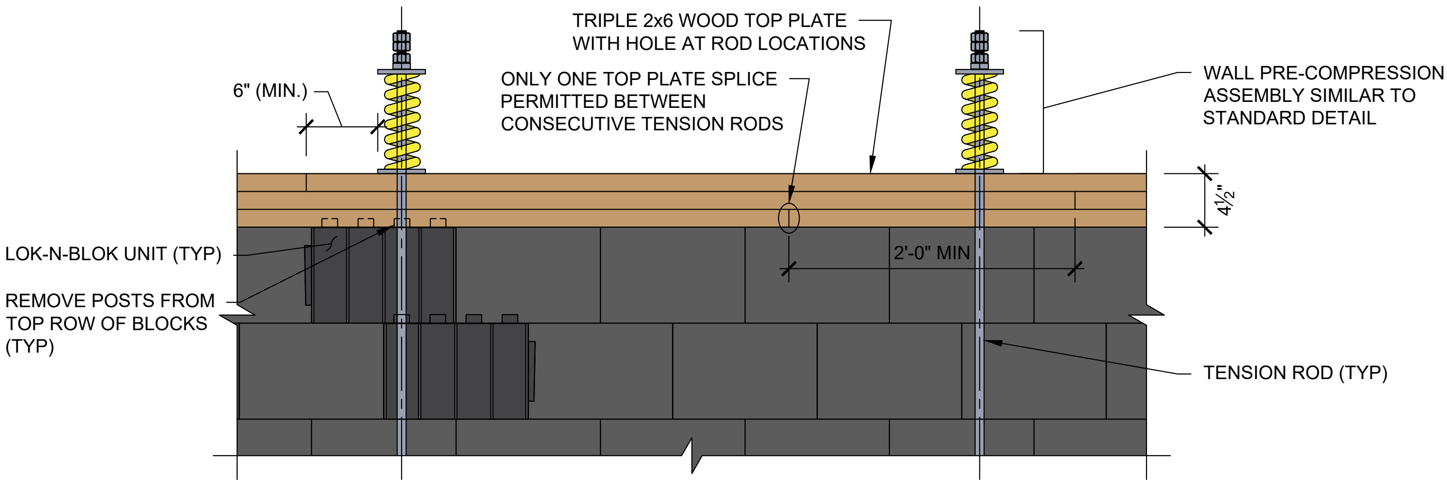
TYPICAL BLANK WALL ELEVATION AND SECTION



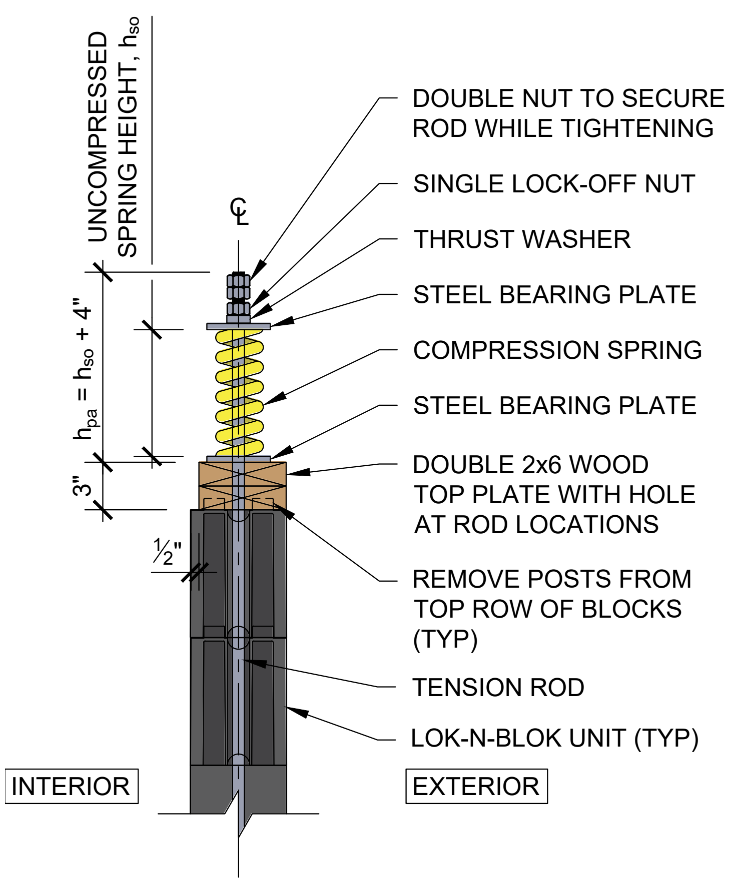
TOP OF WALL ELEVATION – TYPICAL DETAIL (TYP)



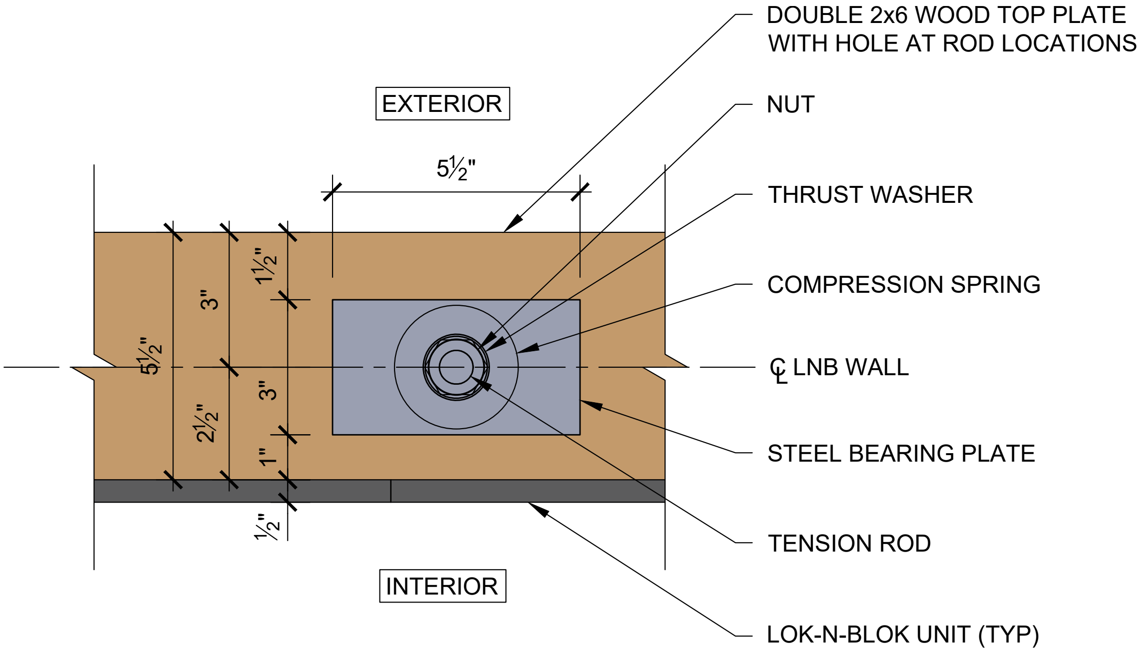
TOP OF WALL VERTICAL SECTION – TYPICAL DETAIL (TYP)



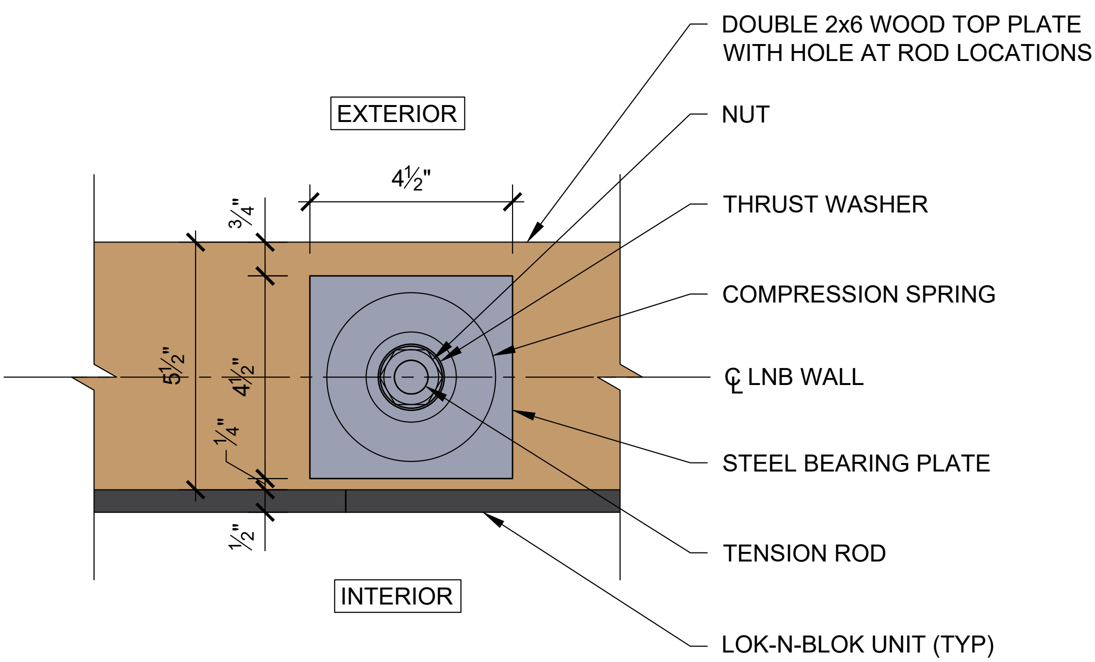
TOP OF WALL ELEVATION – HIGH WIND A (HW–A)



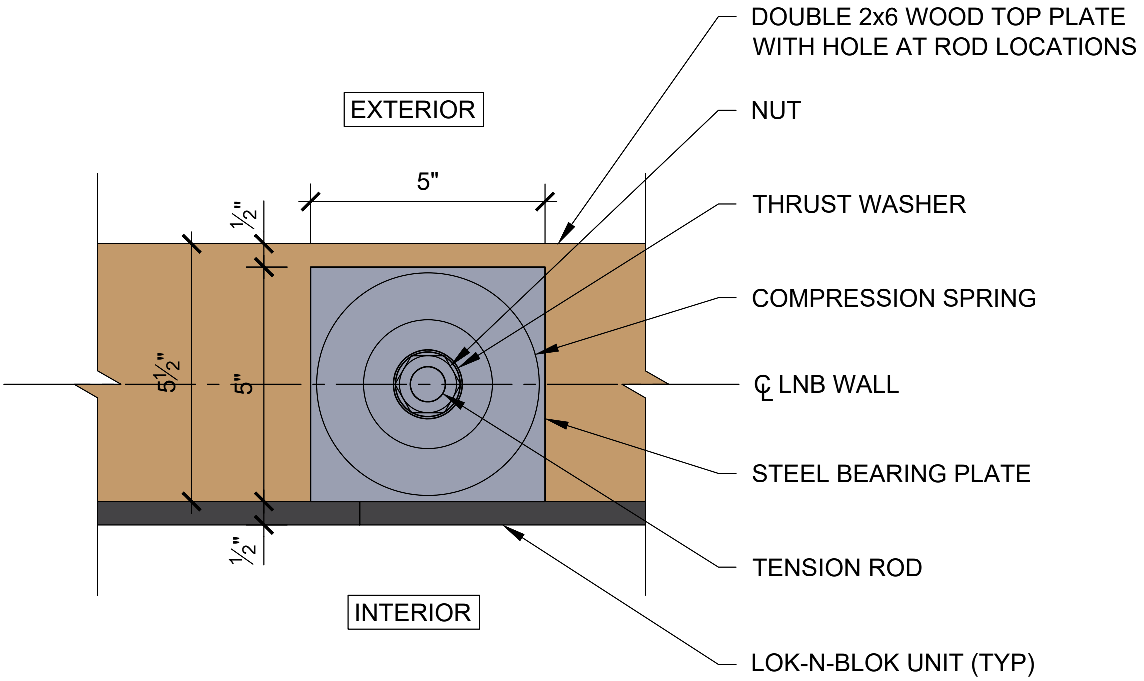
TOP OF WALL VERTICAL SECTION – HIGH WIND A (HW–A)



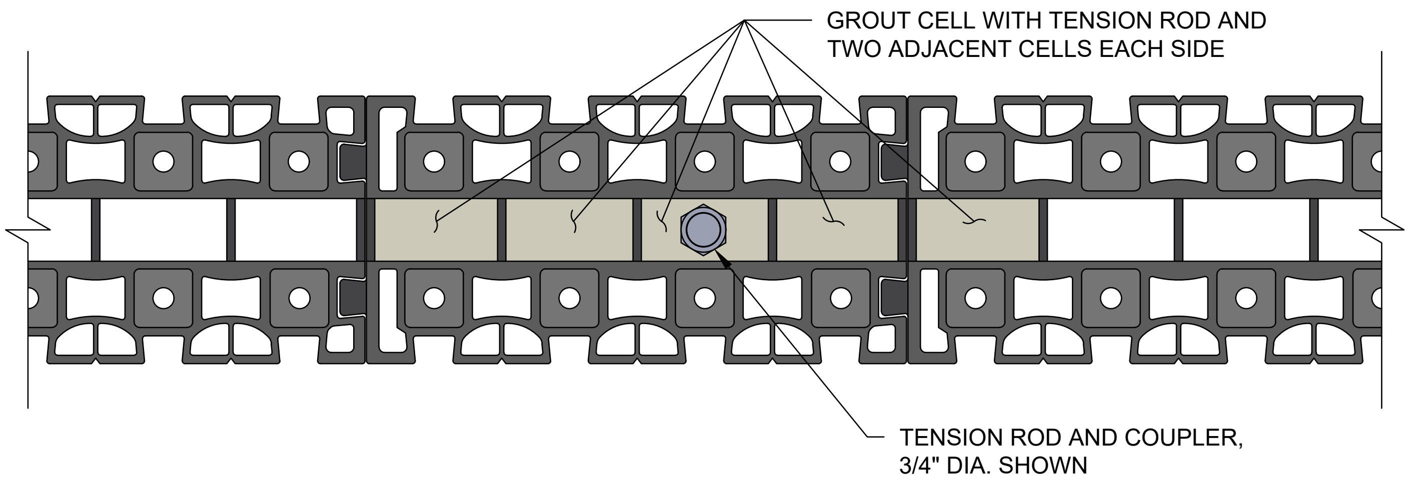
TOP OF WALL PLAN STANDARD DETAIL: SPRING TYPE 1



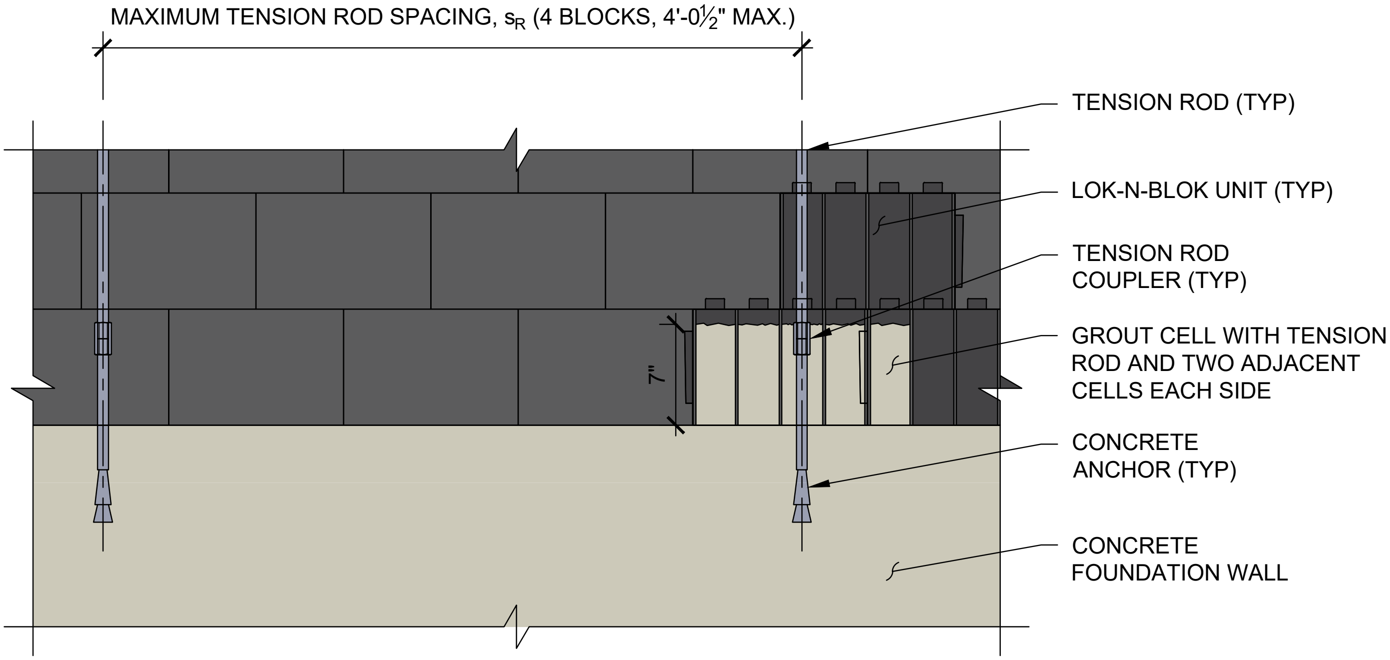
TOP OF WALL PLAN STANDARD DETAIL: SPRING TYPE 2



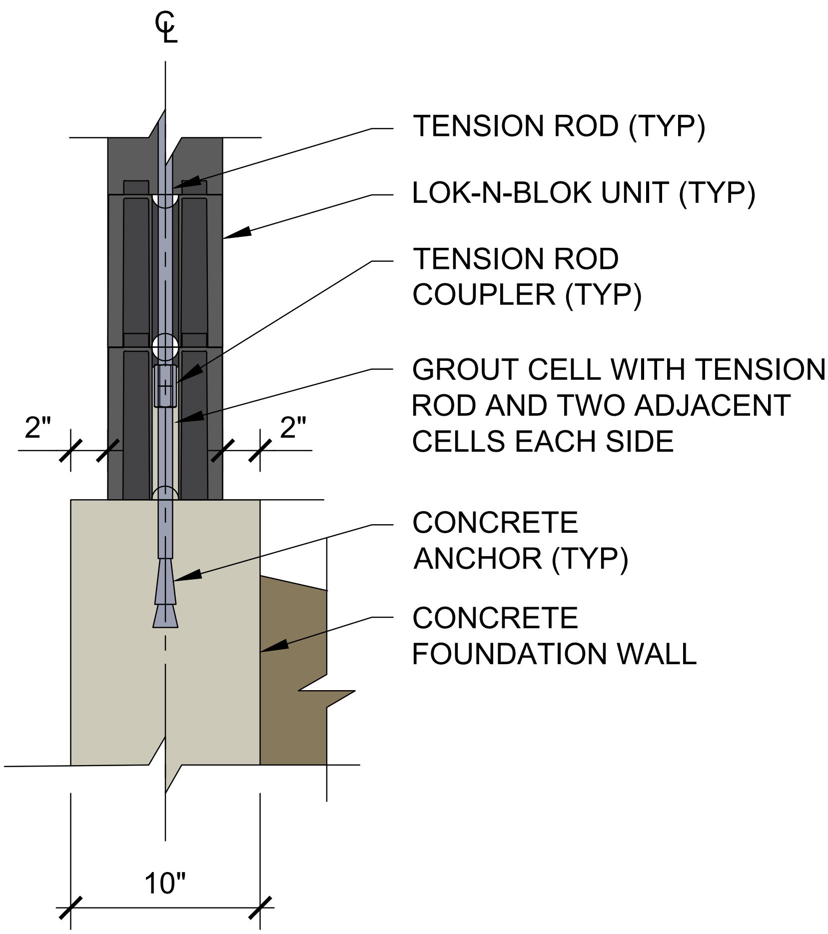
TOP OF WALL PLAN STANDARD DETAIL: SPRING TYPE 3



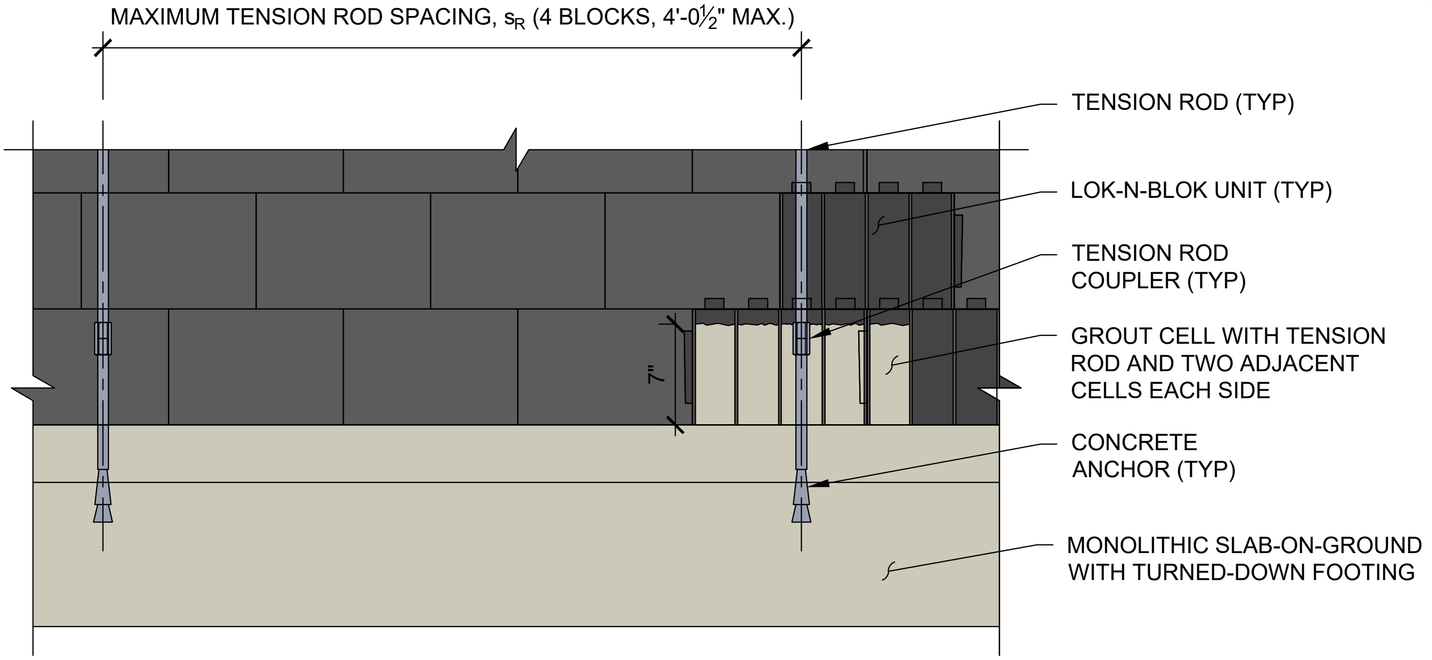
CONCRETE FOUNDATION WALL PLAN



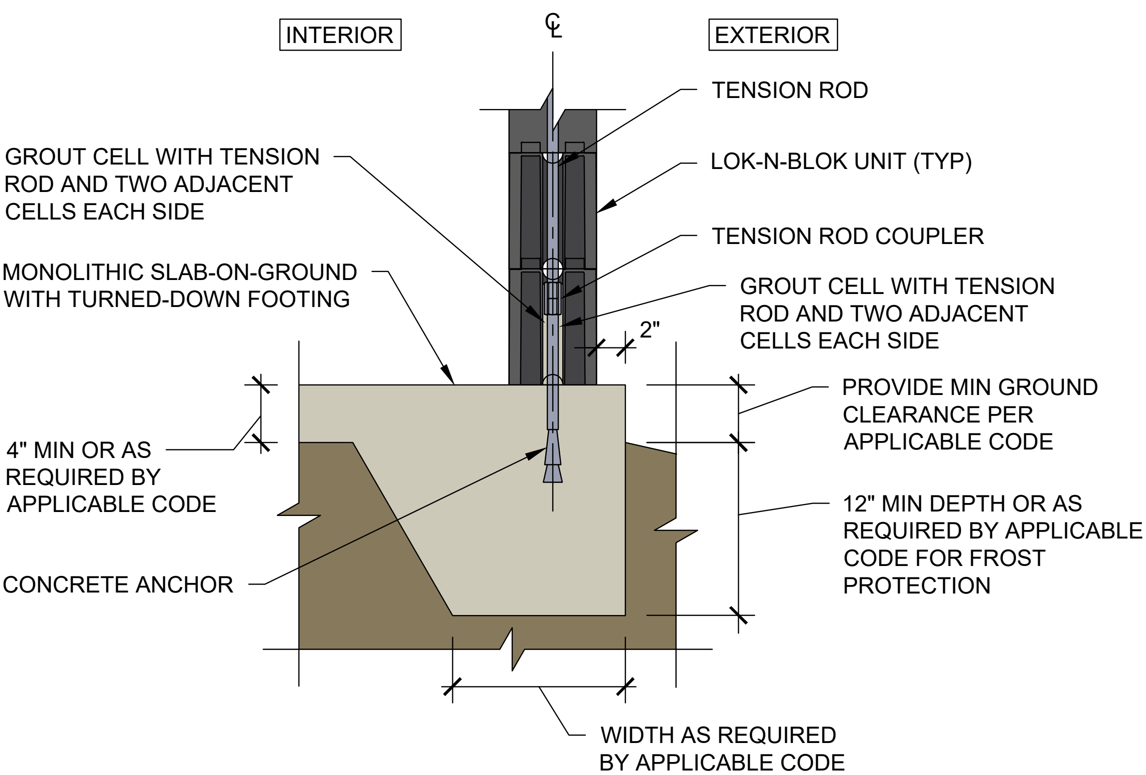
CONCRETE FOUNDATION WALL ELEVATION



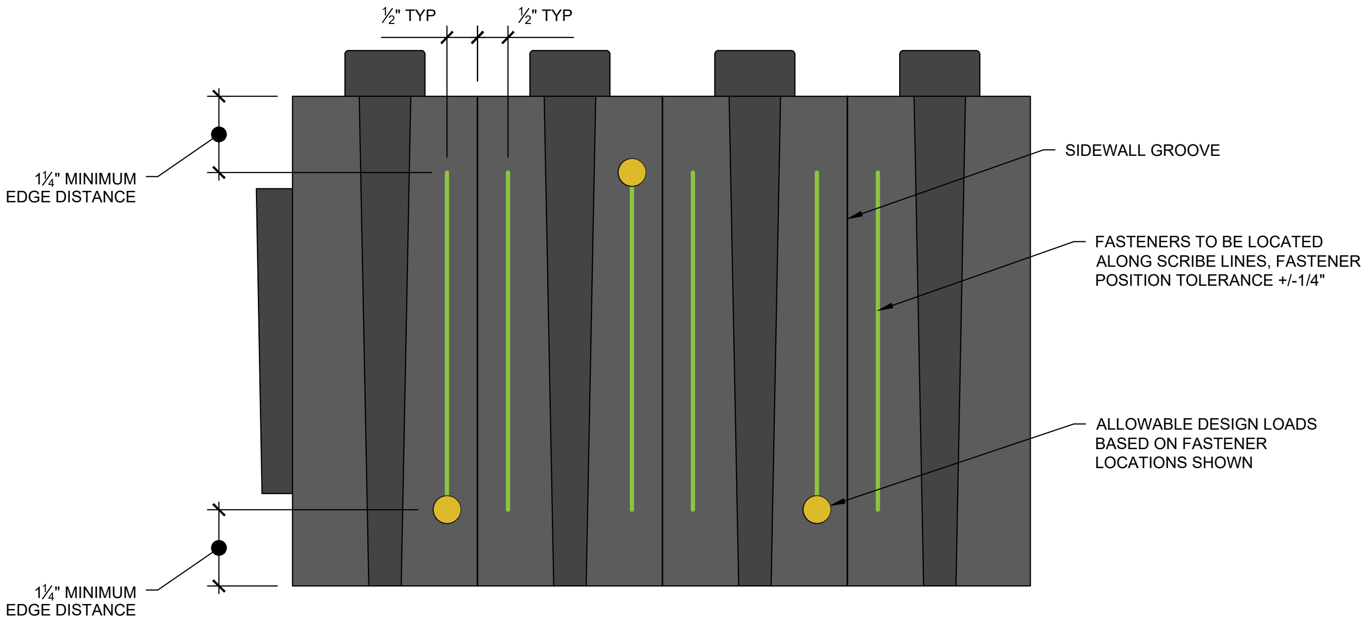
CONCRETE FOUNDATION WALL SECTION



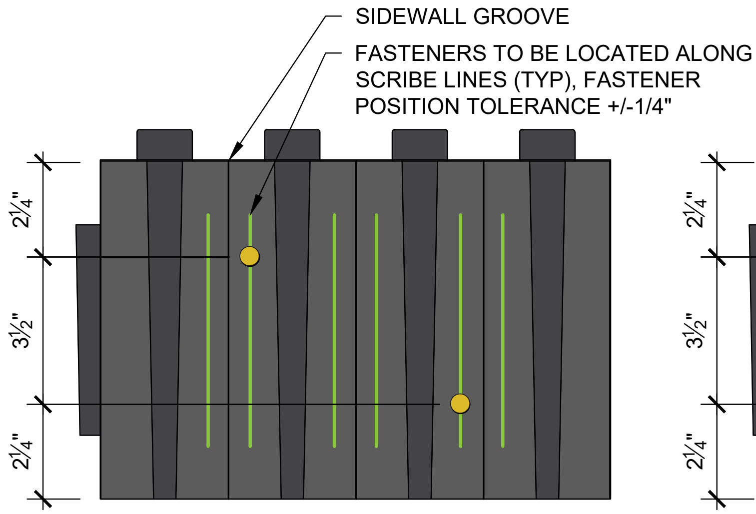
SLAB-ON-GROUND CONCRETE FOUNDATION WALL ELEVATION



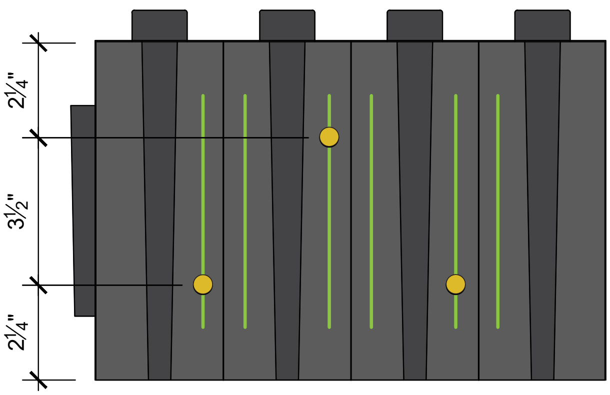
SLAB-ON-GROUND CONCRETE FOUNDATION WALL SECTION



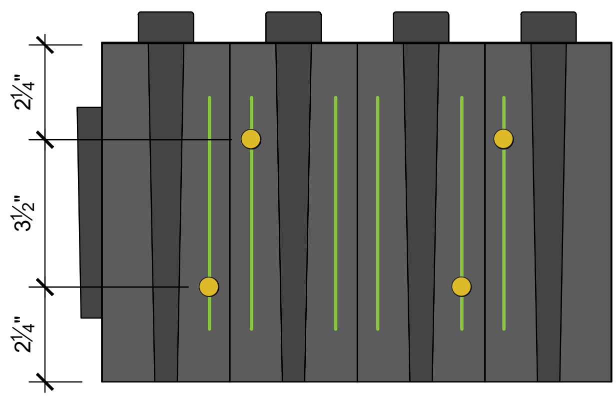
PERMITTED LEDGER BOARD FASTENER LOCATIONS: LOK-N-BLOK



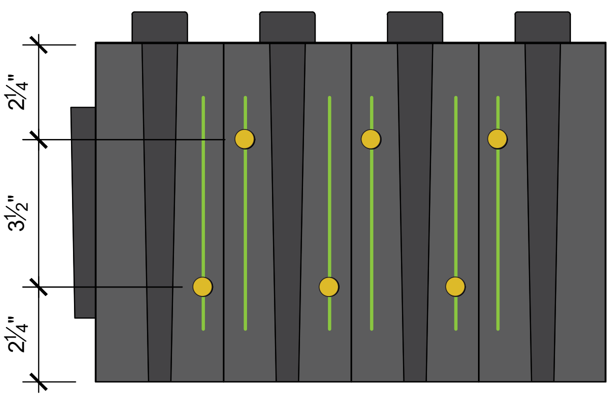
2 FASTENERS



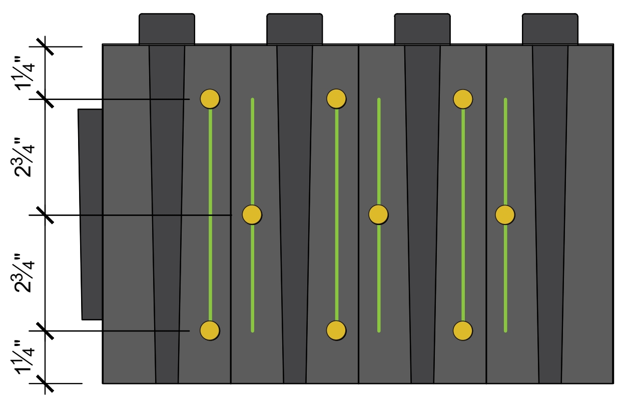
3 FASTENERS



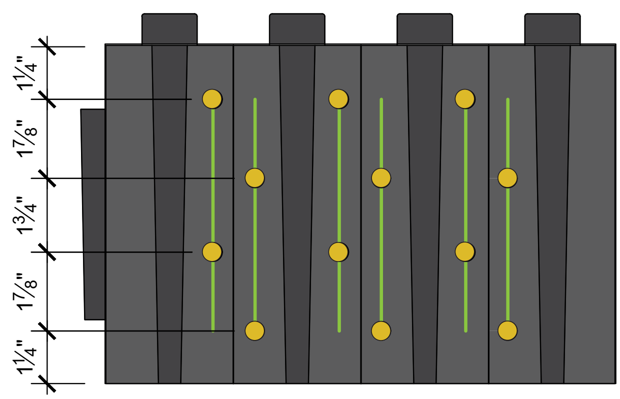
4 FASTENERS



5-6 FASTENERS



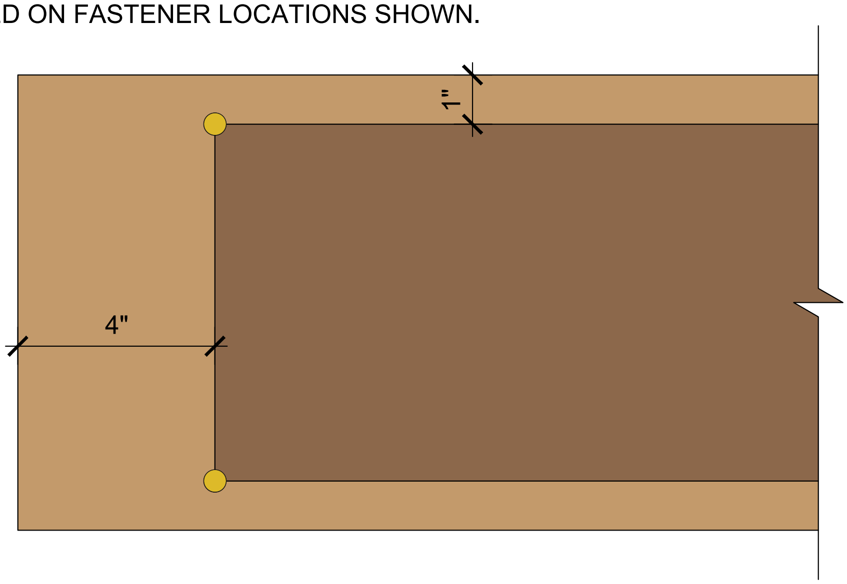
7-9 FASTENERS



10-12 FASTENERS

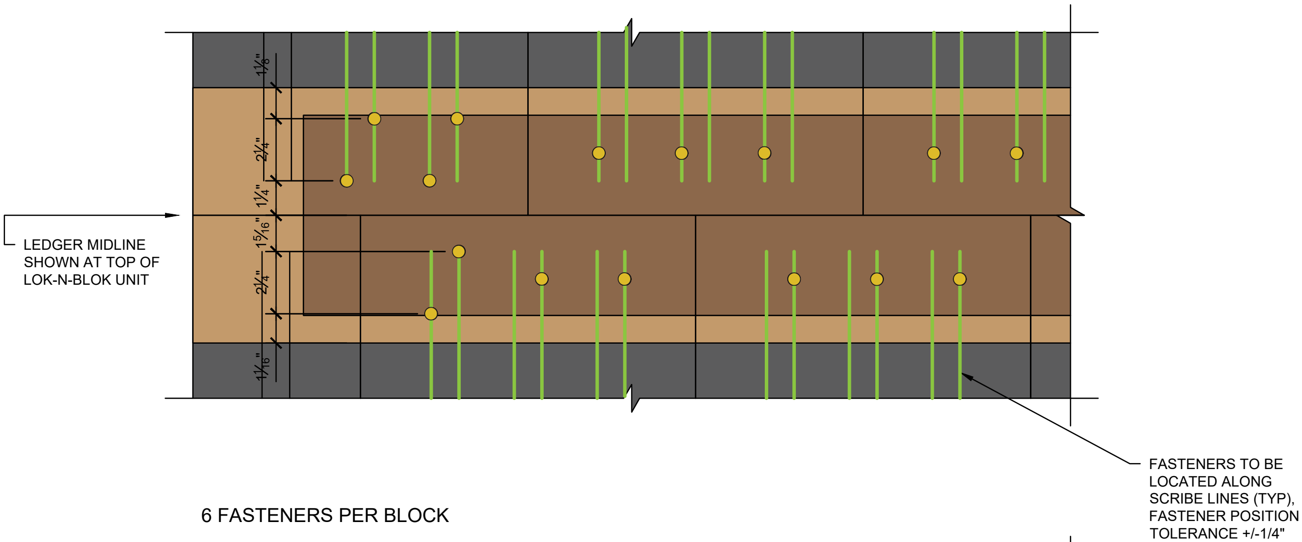
PERMITTED LEDGER BOARD FASTENER LOCATIONS: LOK-N-BLOK

PER SIMPSON STRONG-TIE IAPMO UES ER-192 FOR SDWS16400 FRAMING SCREWS, CENTER OF FASTENERS PERMITTED IN SHADED AREA ON LEDGER BOARD. ALLOWABLE DESIGN LOADS BASED ON FASTENER LOCATIONS SHOWN.

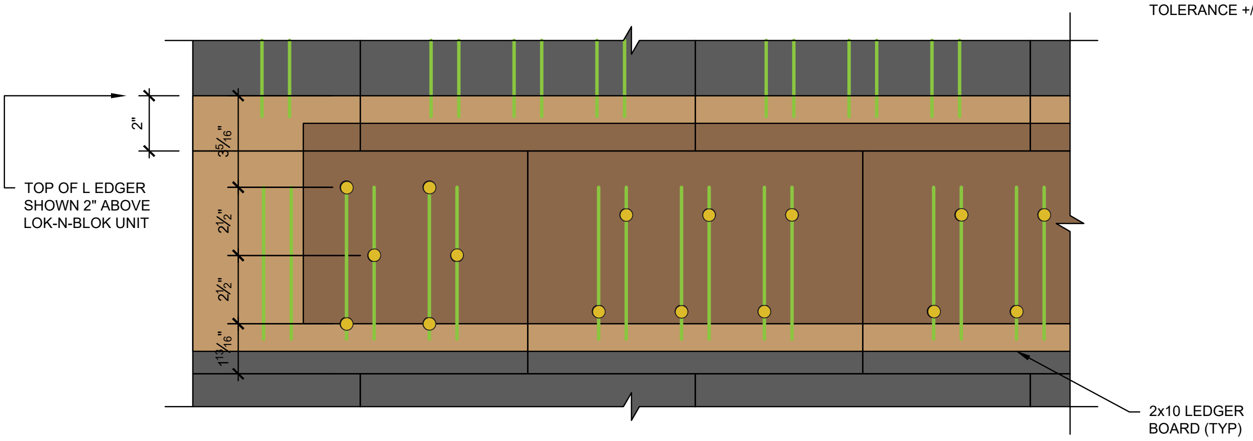


PERMITTED FASTENER LOCATIONS: LEDGER BOARD

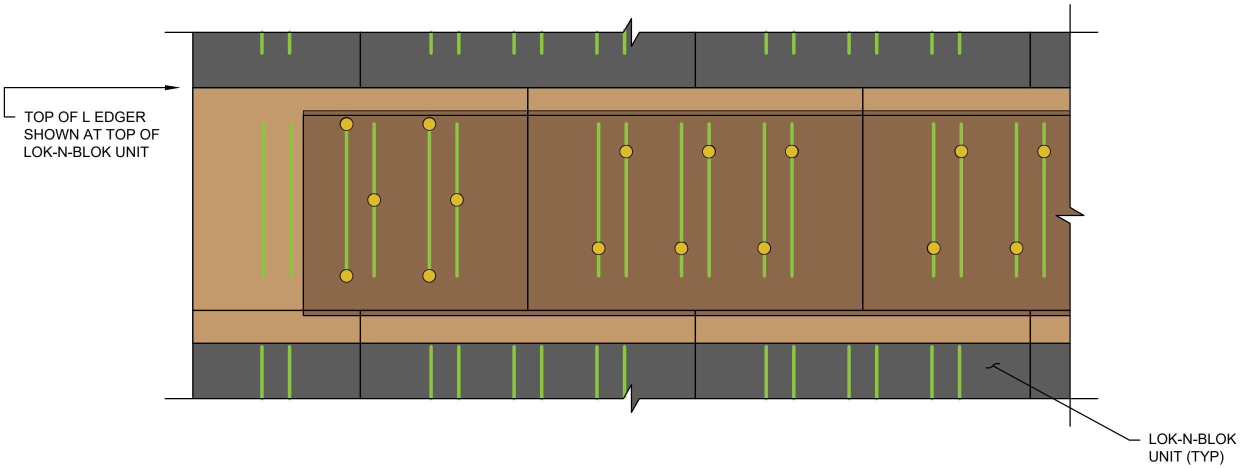
6 FASTENERS PER BLOCK



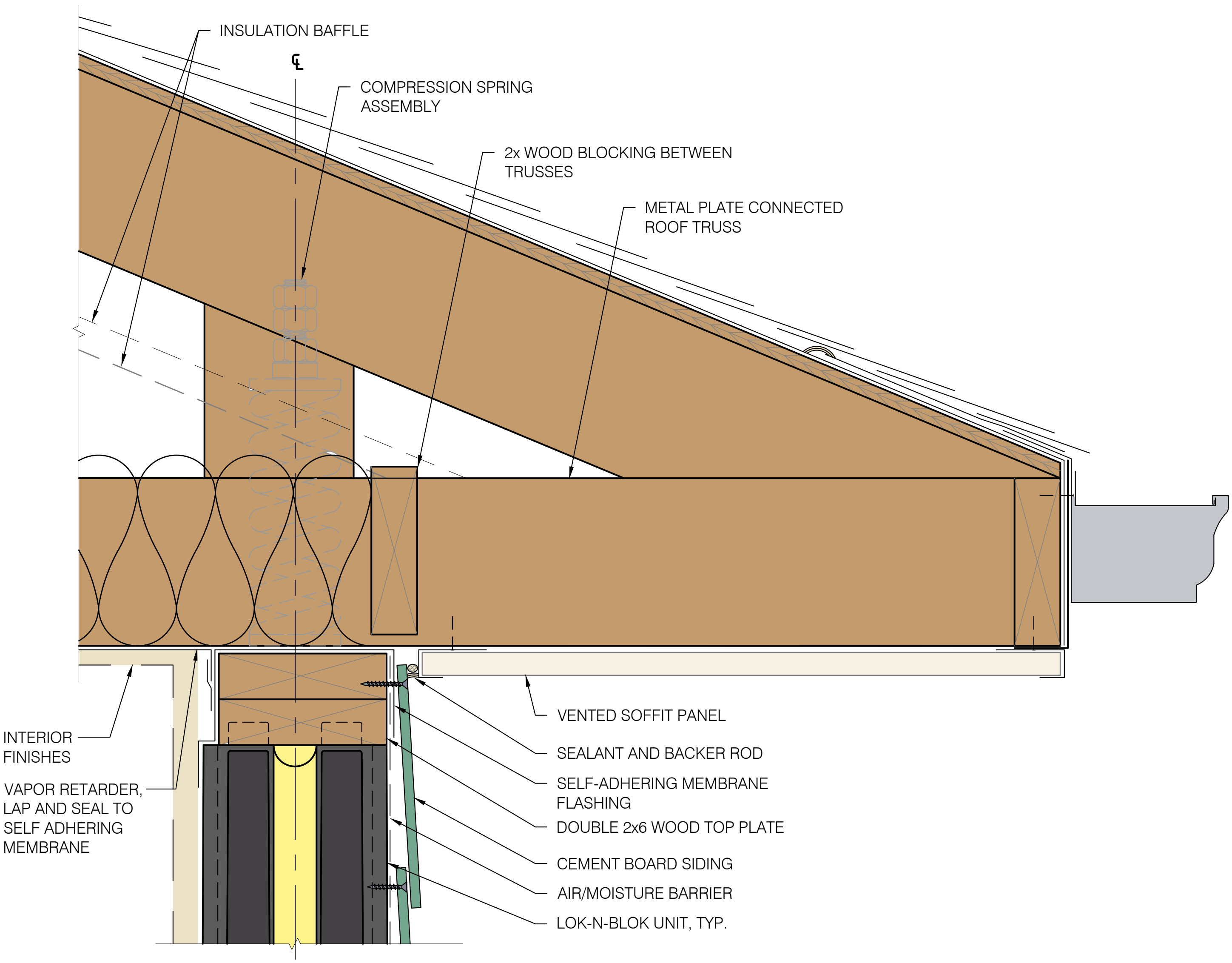
6 FASTENERS PER BLOCK



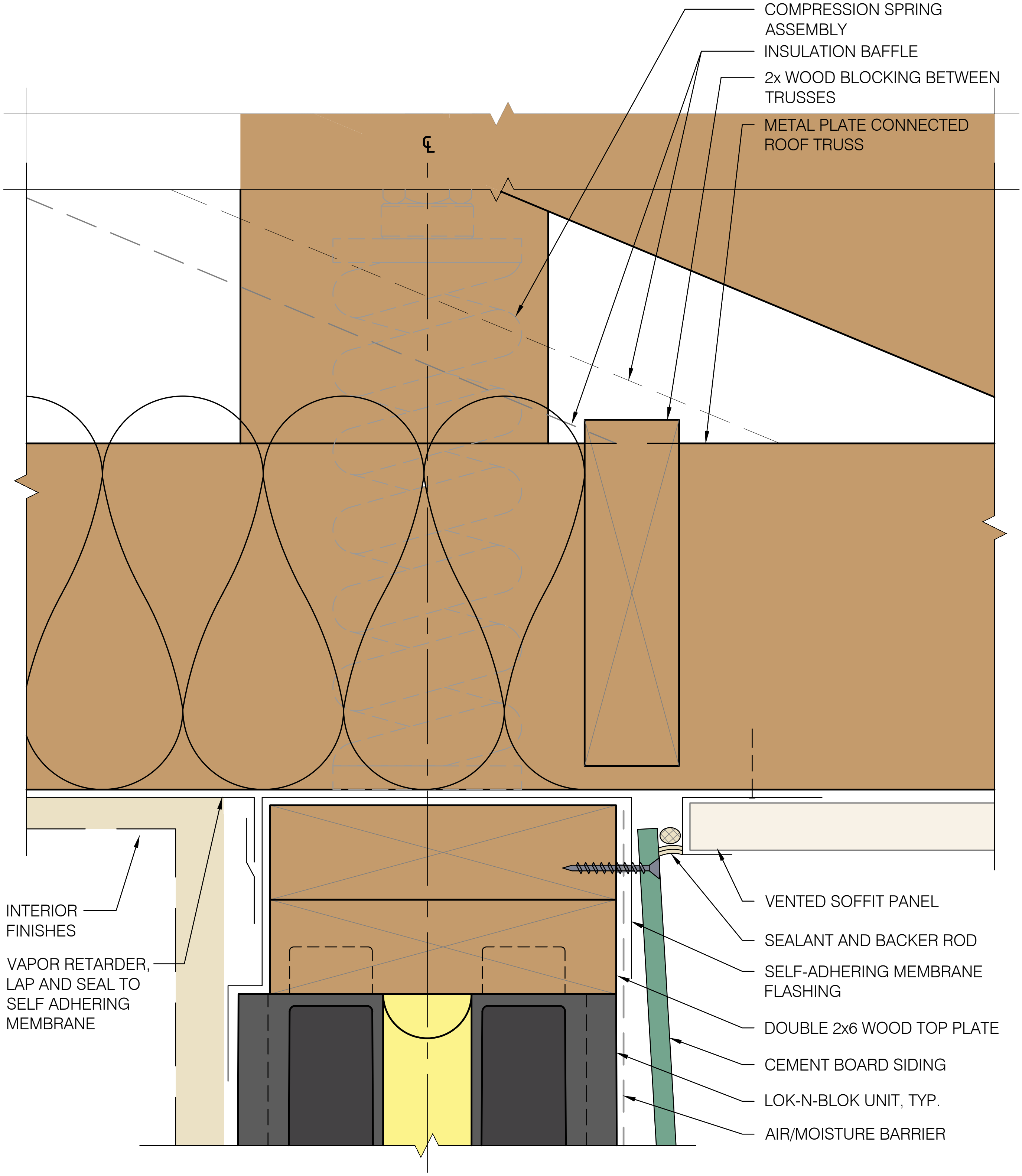
6 FASTENERS PER BLOCK



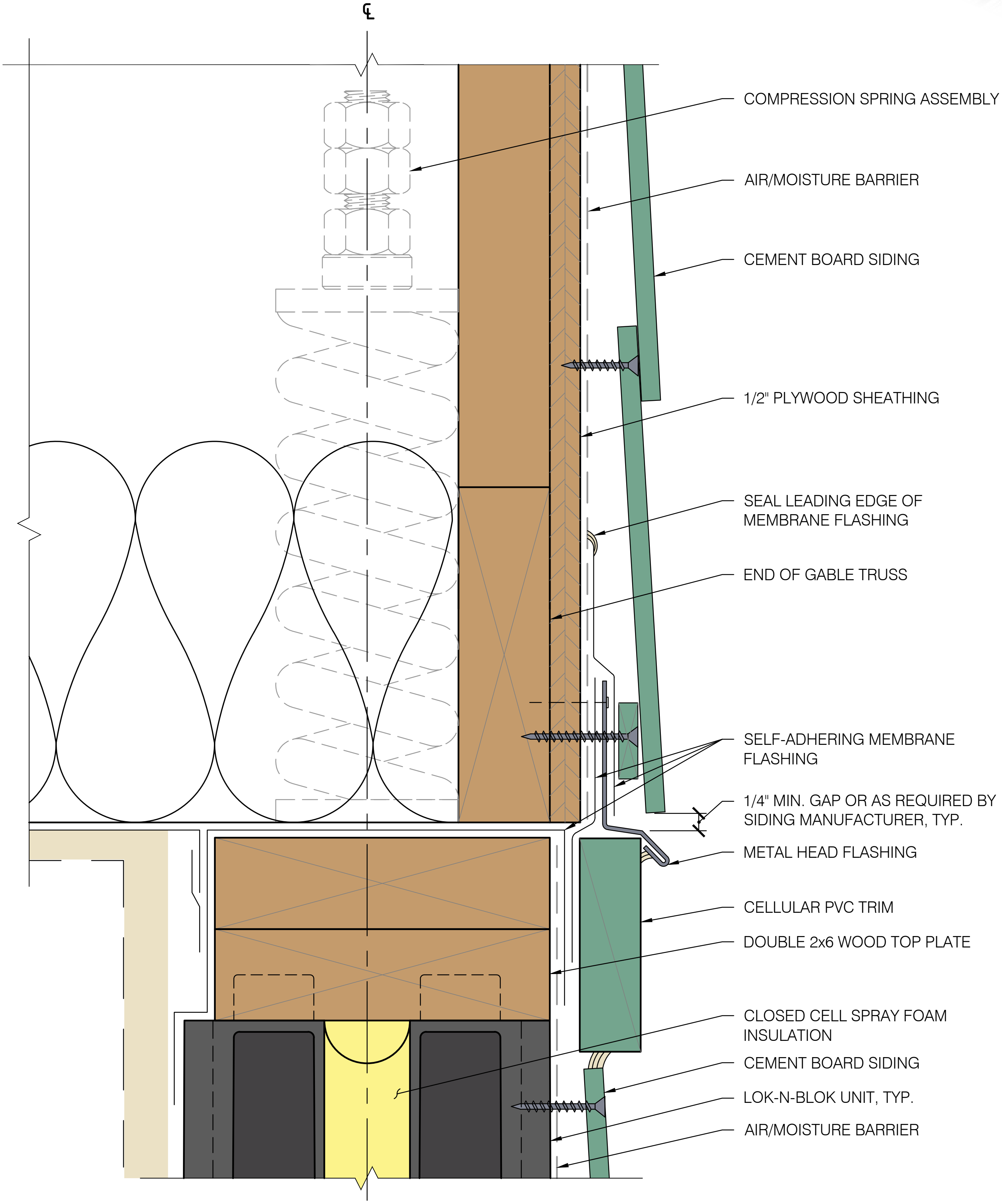
RECOMMENDED LEDGER BOARD FASTENER PATTERNS



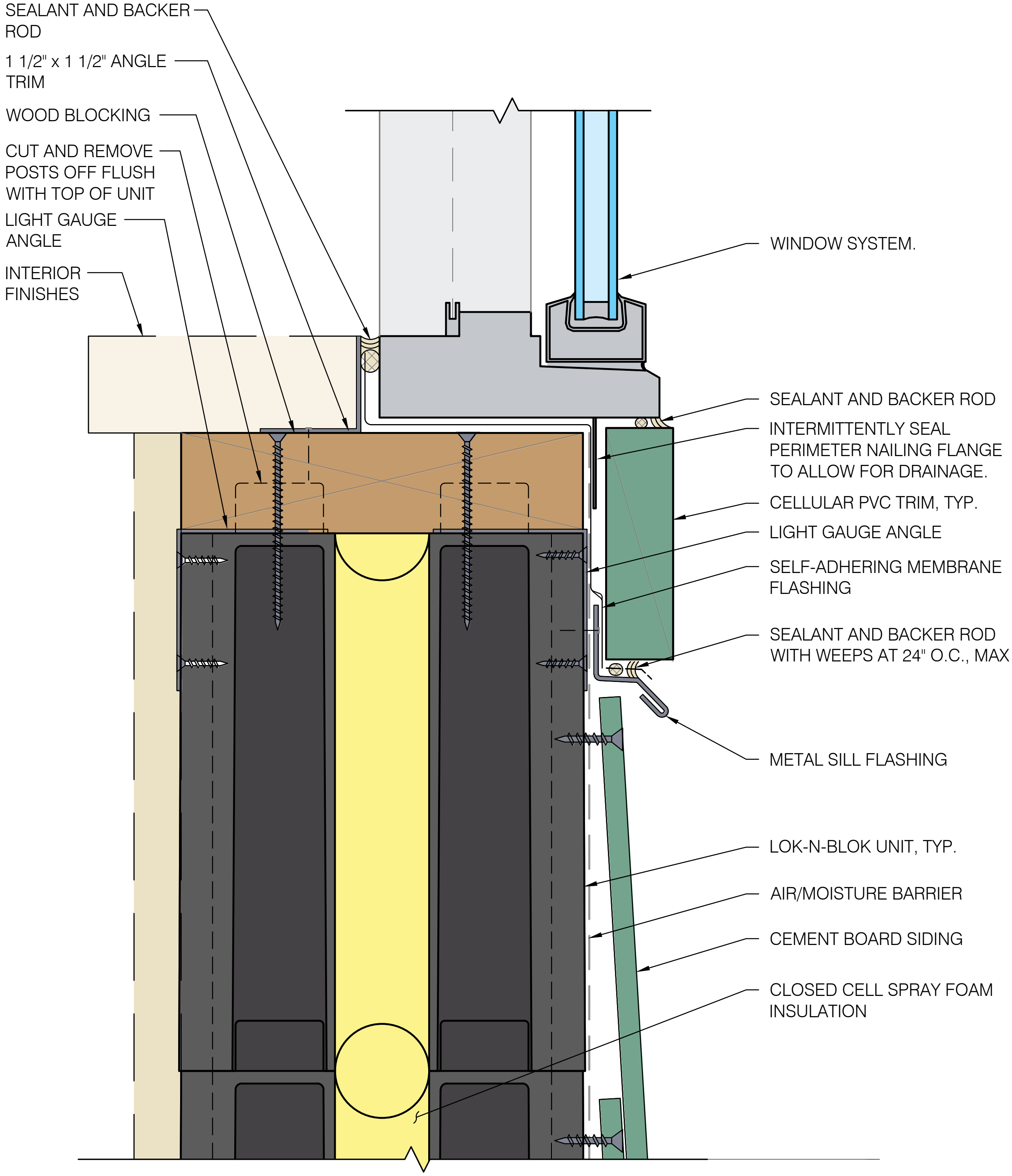
TOP OF WALL DETAIL – INTERIOR INSULATION



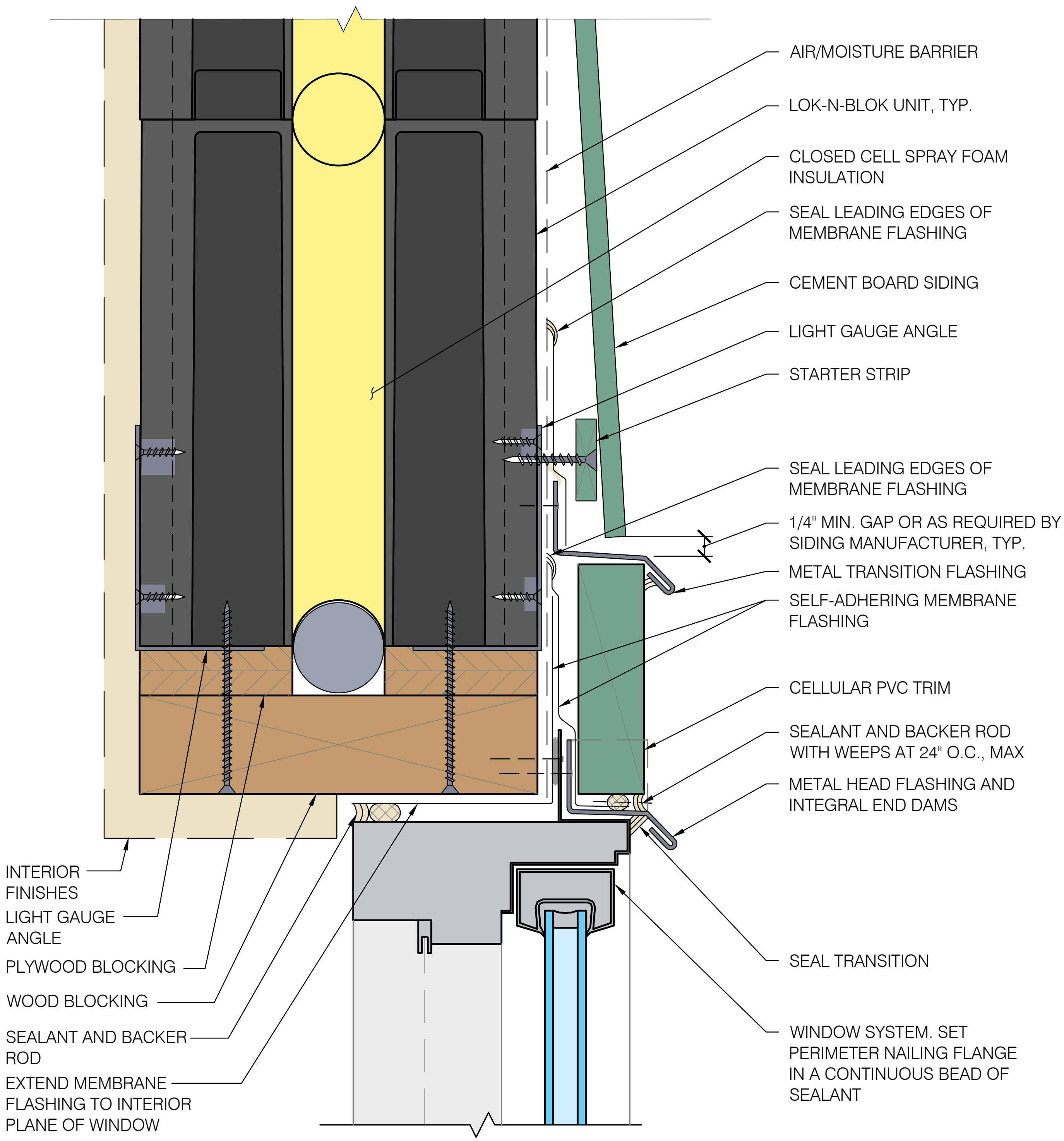
TOP OF WALL DETAIL – INTERIOR INSULATION



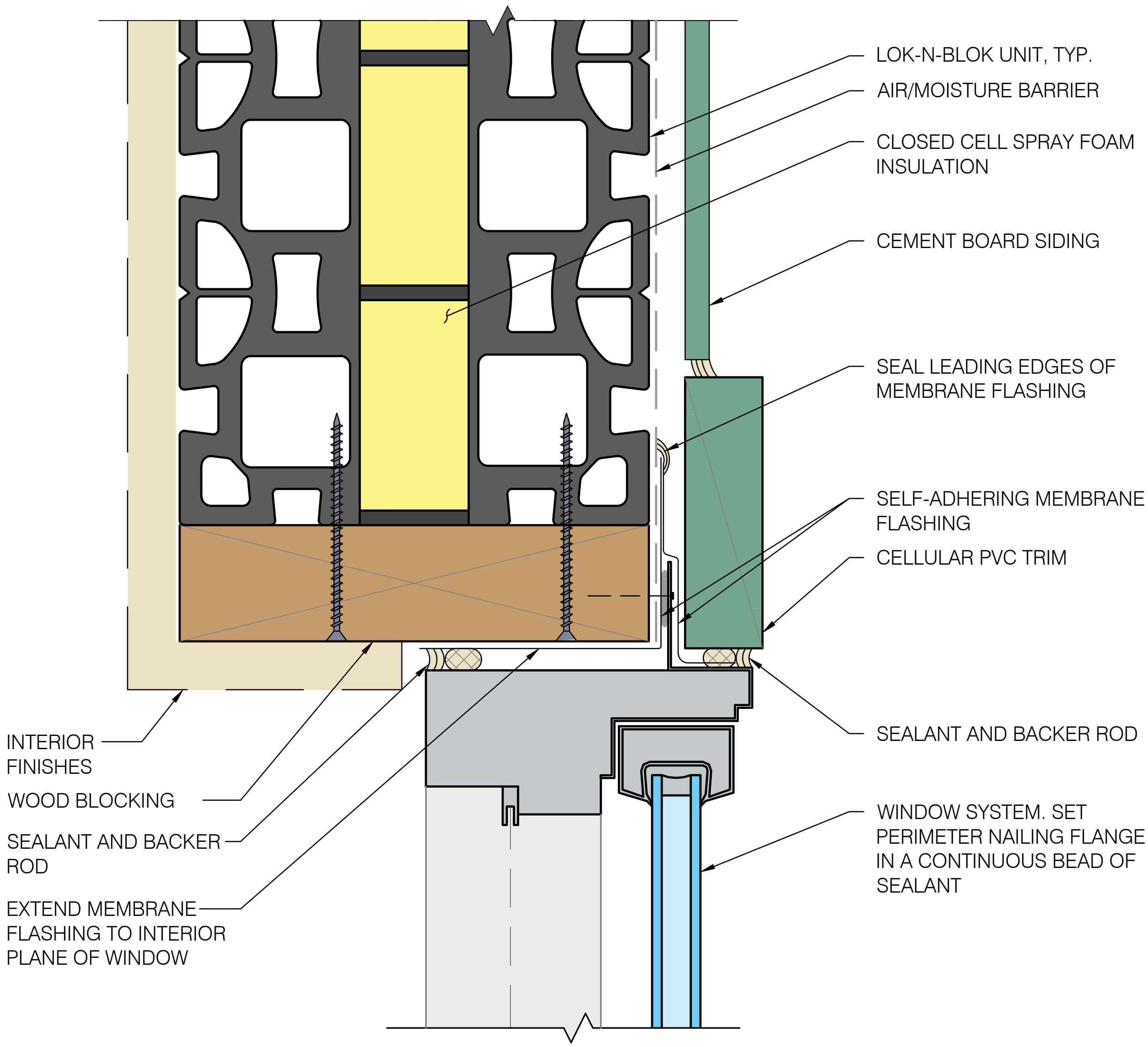
GABLE ENDWALL DETAIL – INTERIOR INSULATION



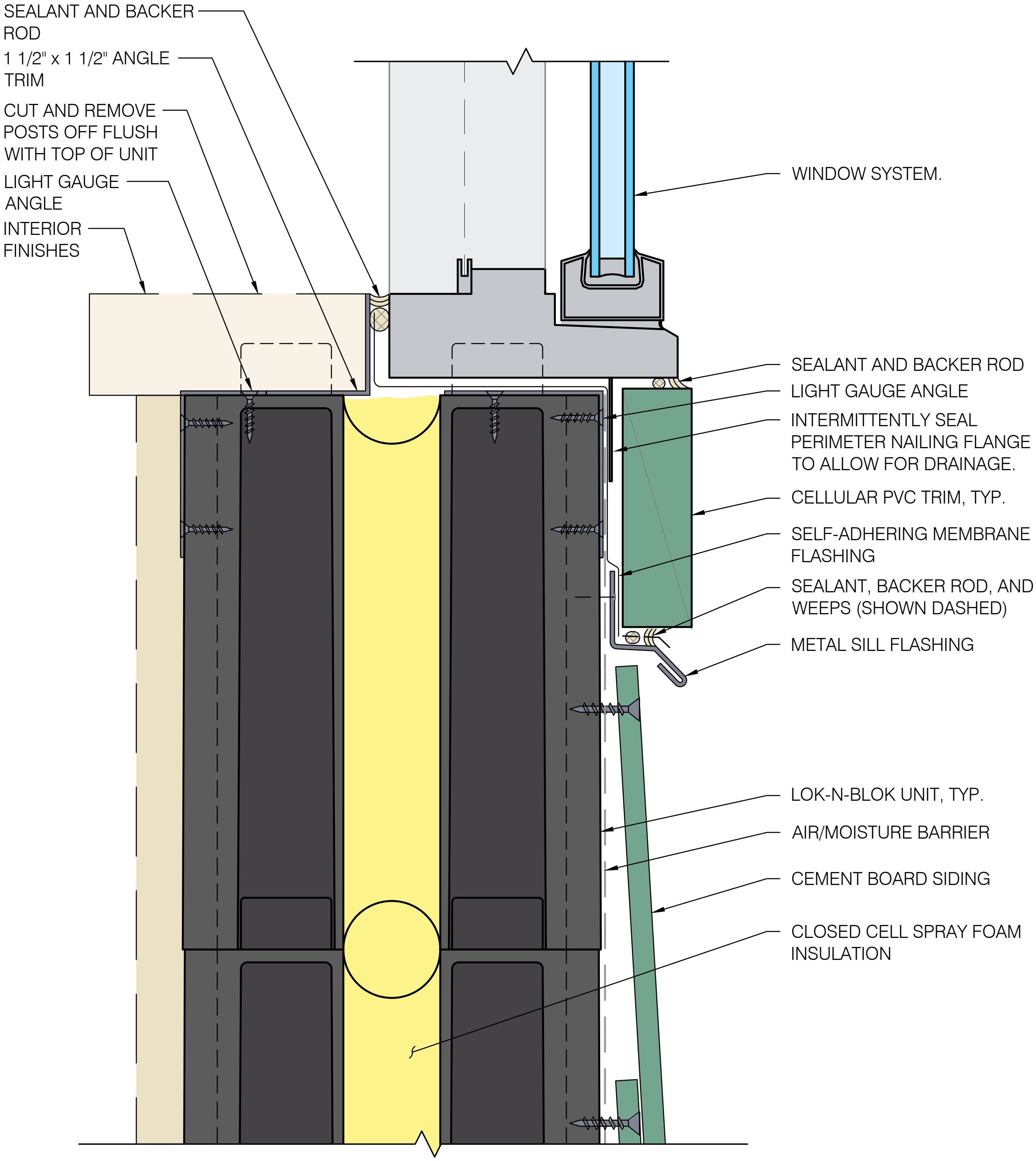
WINDOW SILL DETAIL – INTERIOR INSULATION



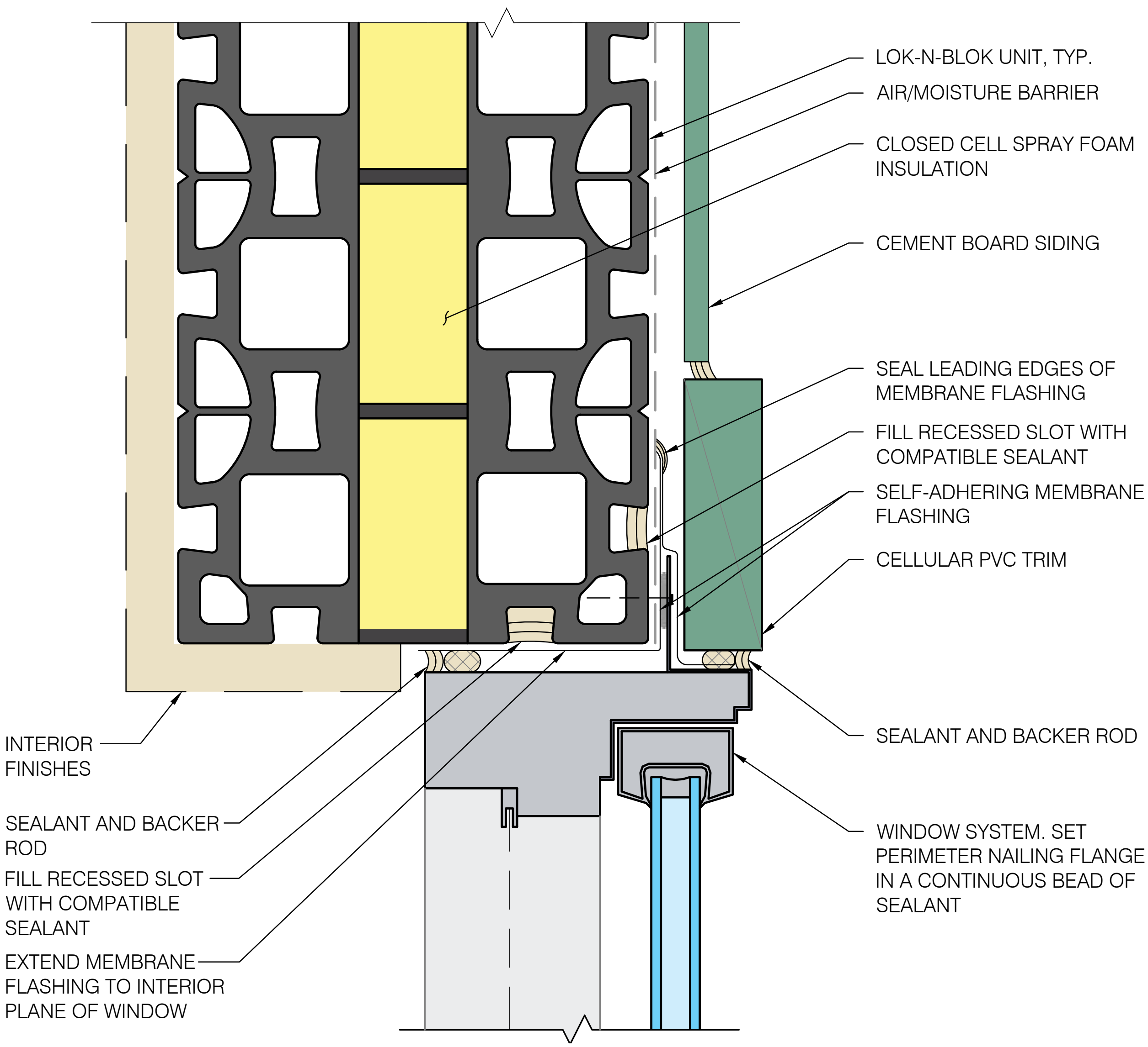
WINDOW HEAD DETAIL – INTERIOR INSULATION



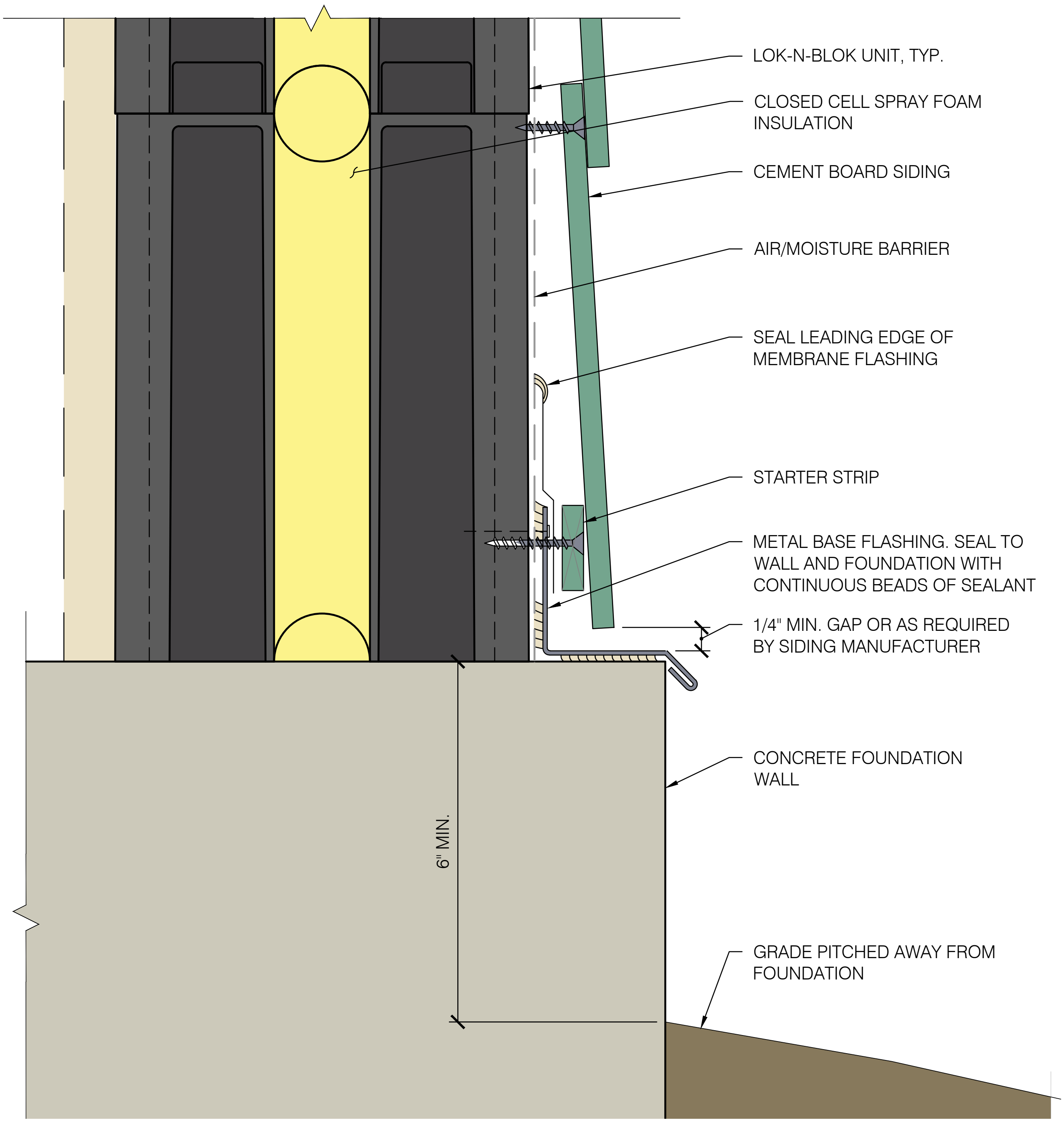
WINDOW JAMB DETAIL – INTERIOR INSULATION



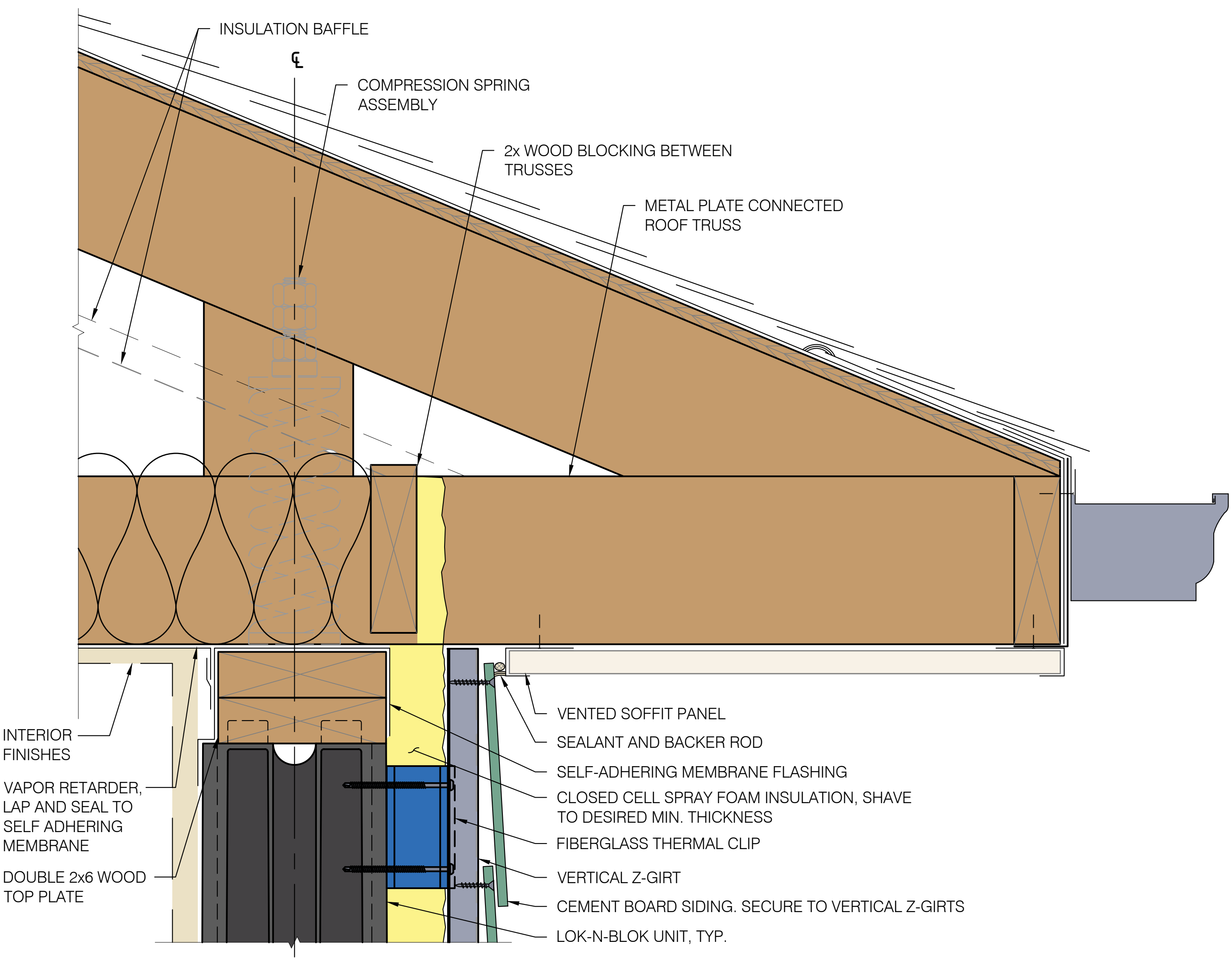
WINDOW SILL DETAIL – FLANGED WINDOW



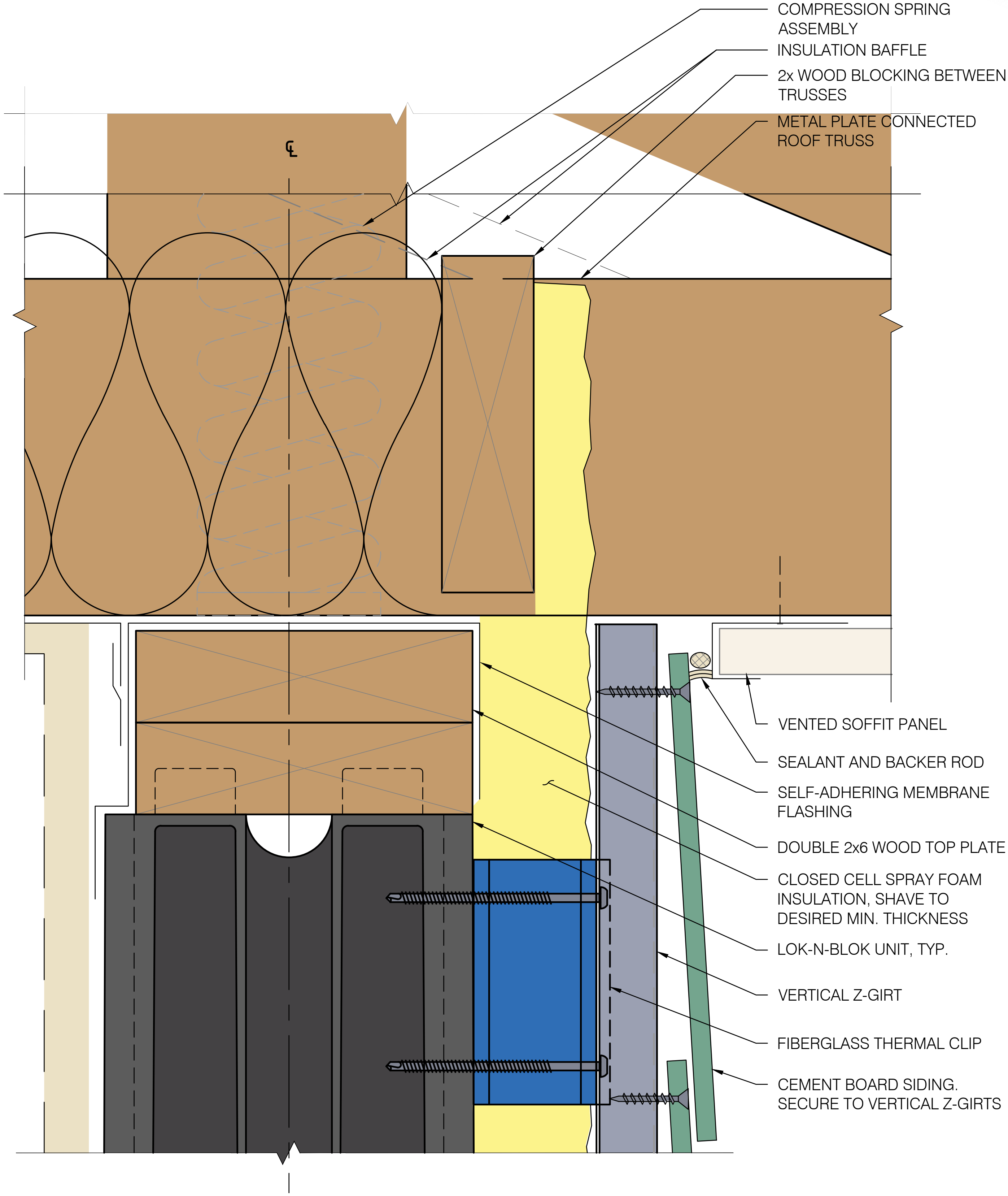
WINDOW JAMB DETAIL – FLANGED WINDOW



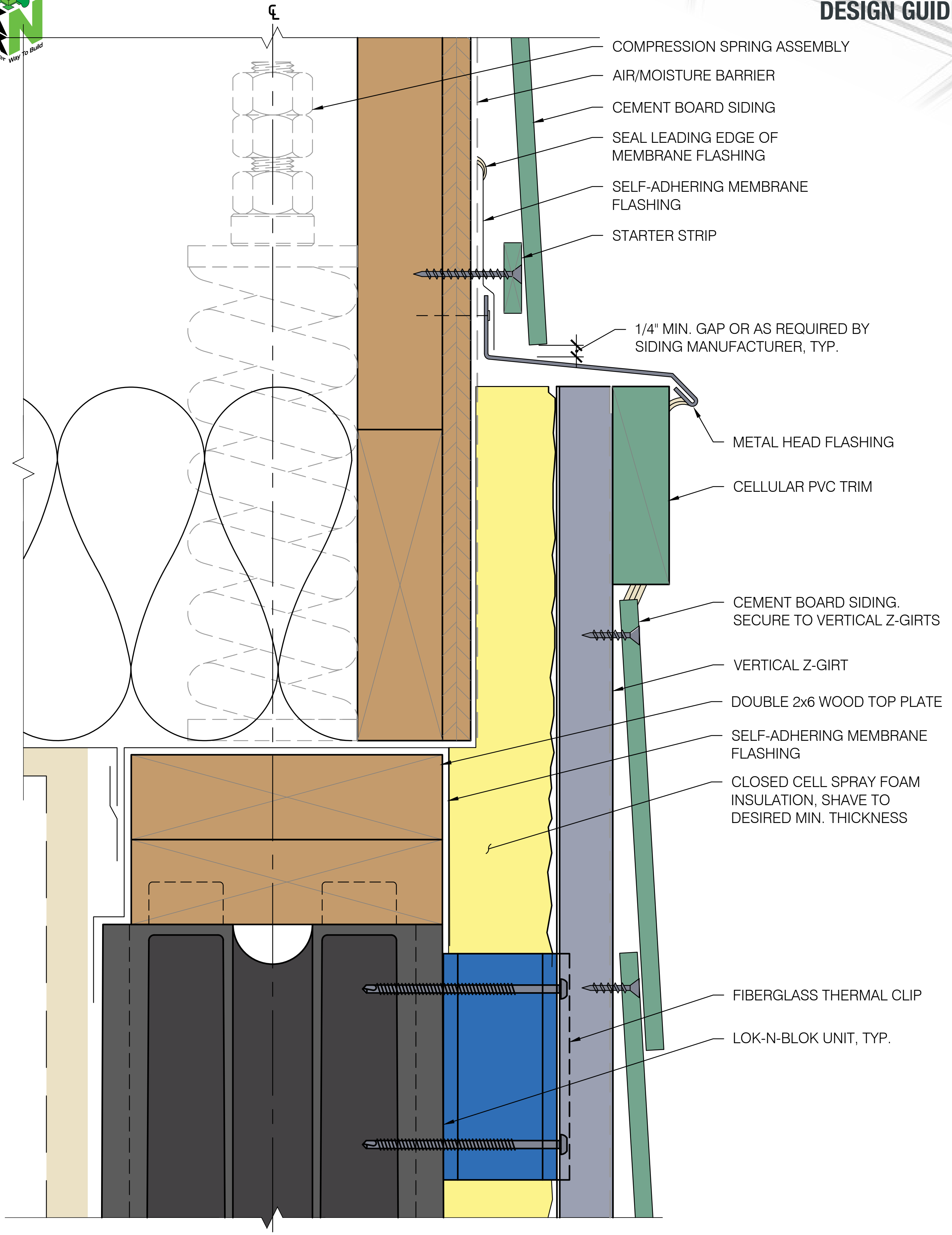
BASE OF WALL SECTION – INTERIOR INSULATION



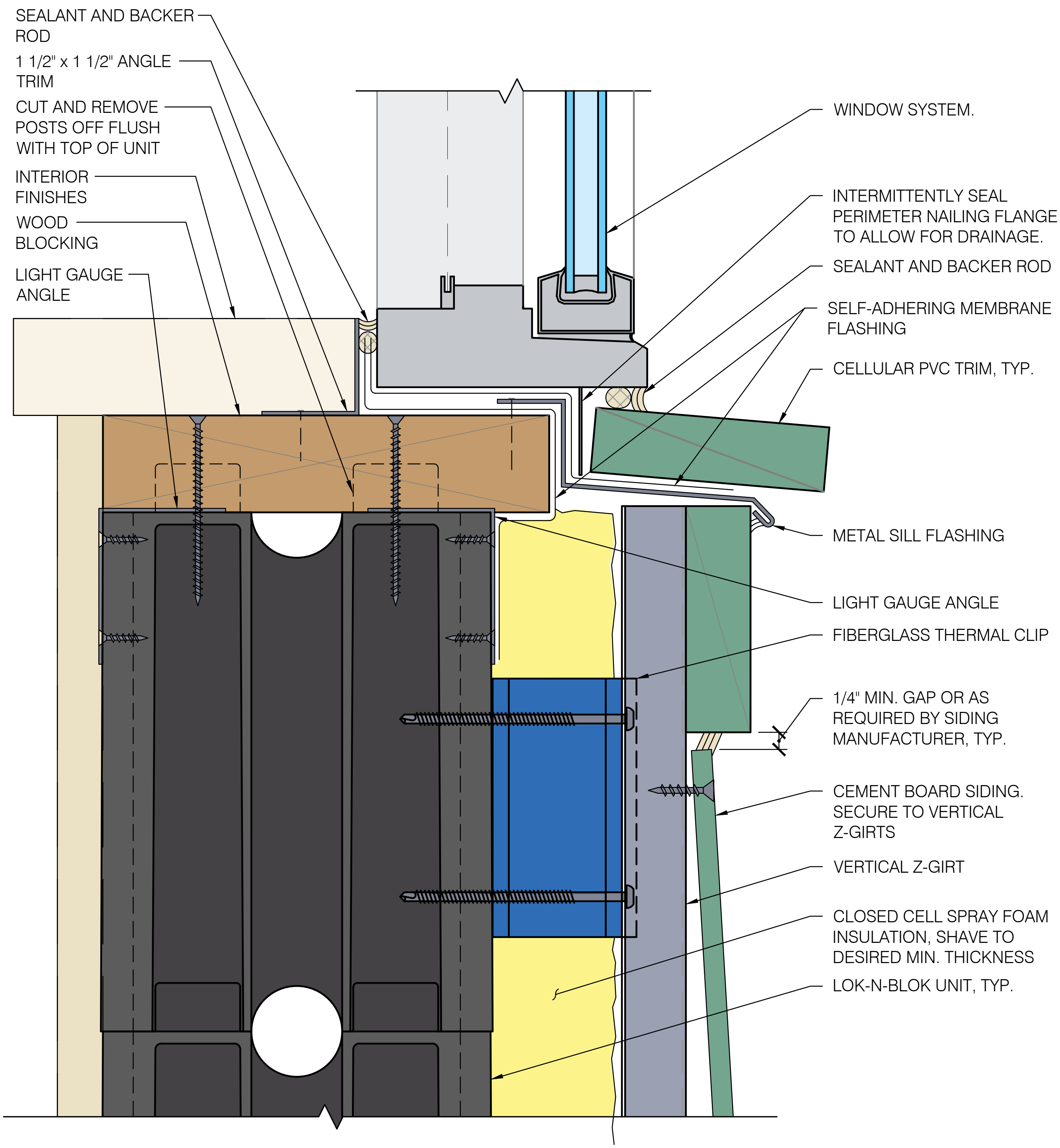
TOP OF WALL DETAIL – EXTERIOR INSULATION



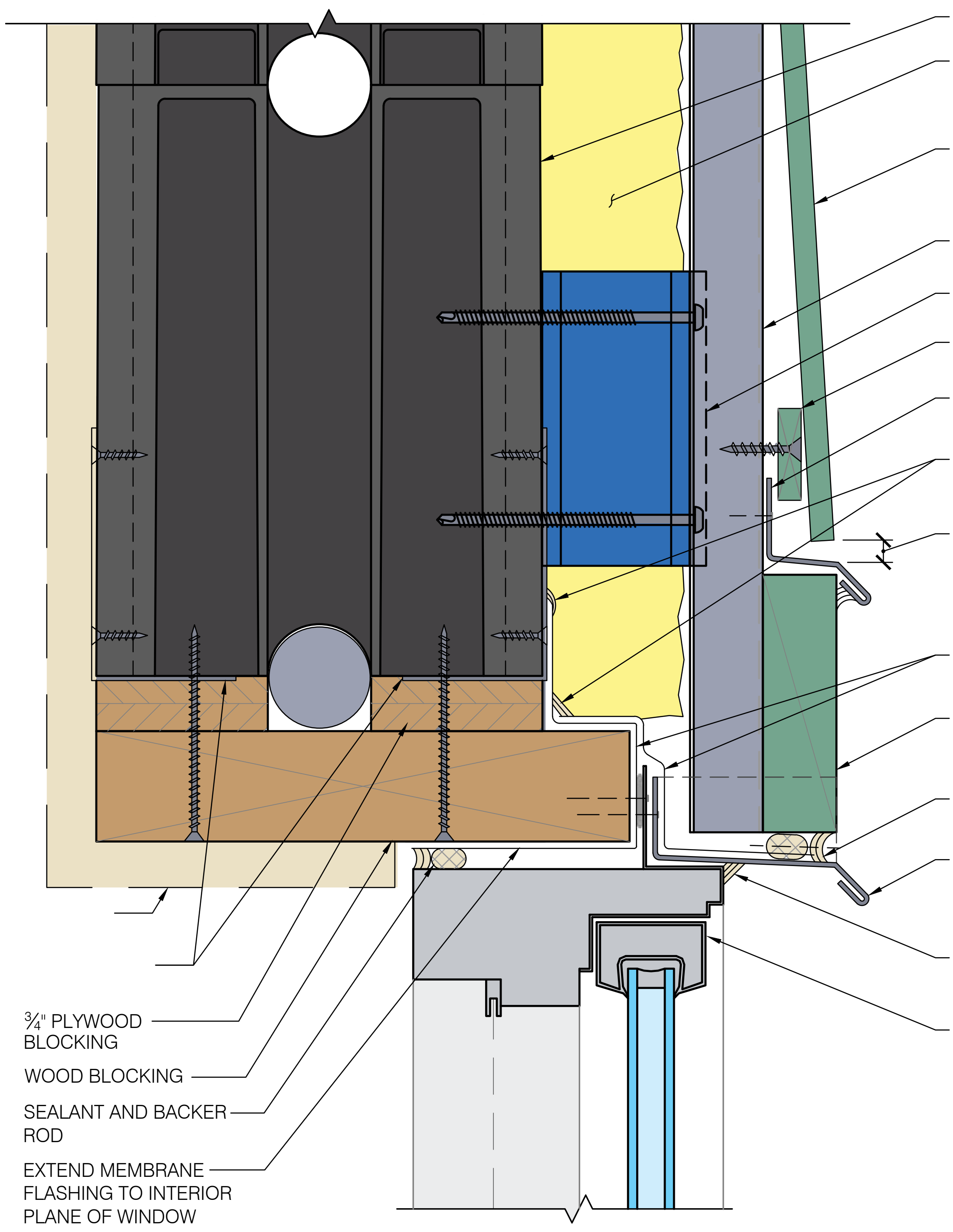
TOP OF WALL DETAIL – EXTERIOR INSULATION



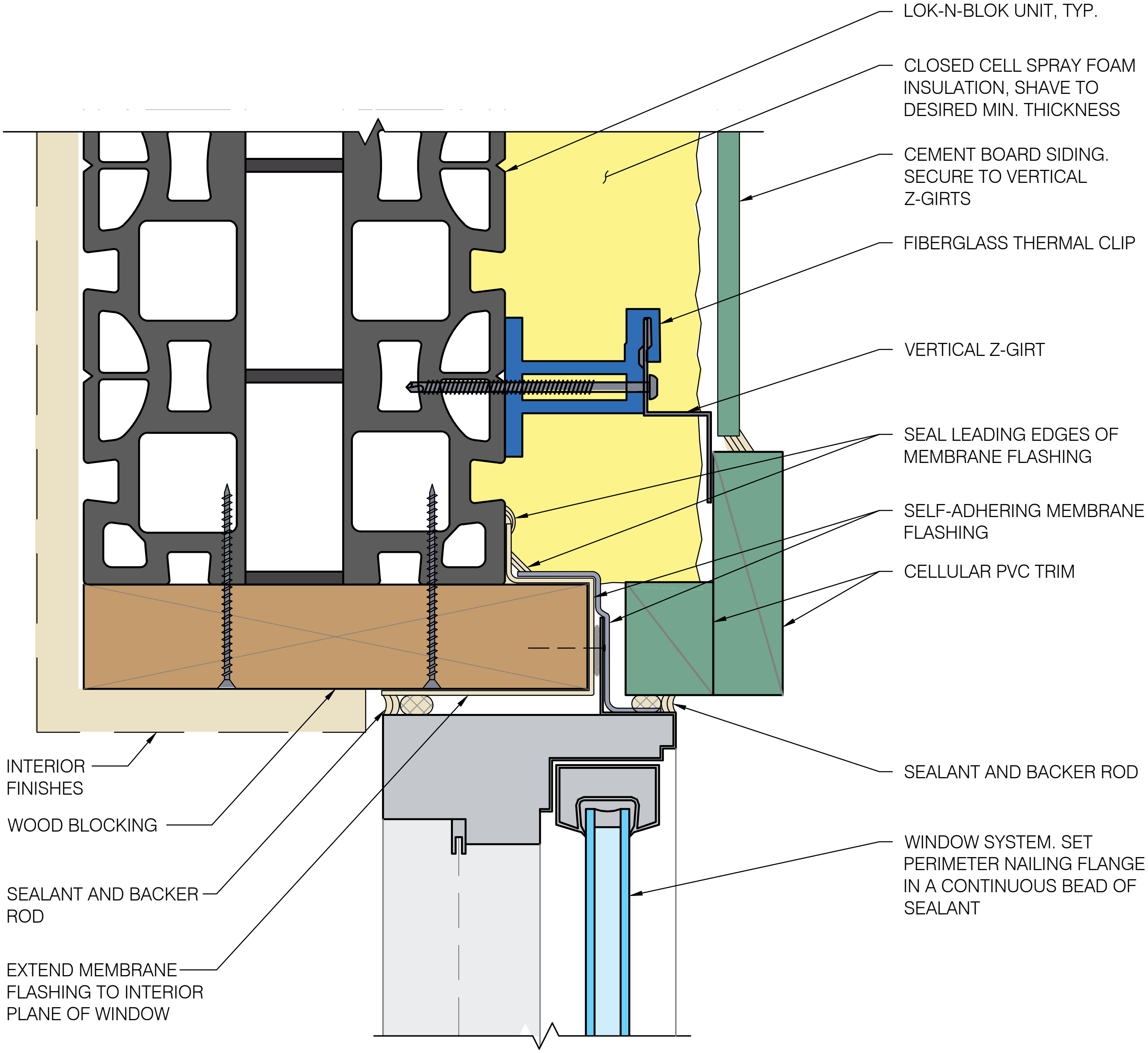
GABLE ENDWALL DETAIL – EXTERIOR INSULATION



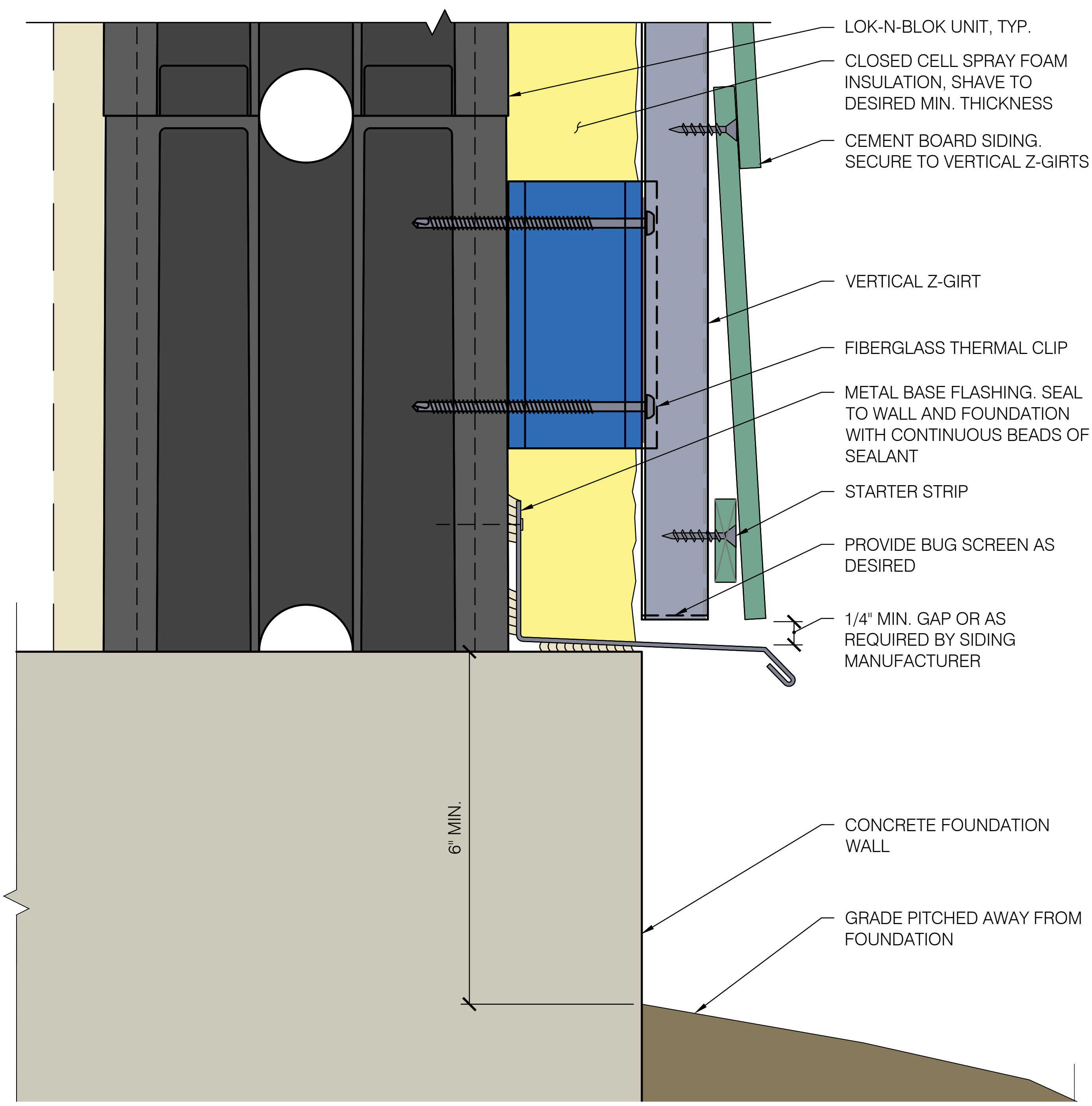
WINDOW SILL DETAIL – EXTERIOR INSULATION



WINDOW HEAD DETAIL – EXTERIOR INSULATION



WINDOW JAMB DETAIL – EXTERIOR INSULATION



BASE OF WALL SECTION – EXTERIOR INSULATION