

ARCH 2331

BUILDING TECHNOLOGY II



Cite: Lindsay Duddy. "This Moss-Covered, Octagonal Micro-Cabin Combines Luxury and Rustic Aesthetic" 12 Oct 2018. ArchDaily. Accessed 12 Oct 2018. <<https://www.archdaily.com/903776/this-moss-covered-octagonal-micro-cabin-combines-luxury-and-rustic-aesthetic/>>
JSSN 0719-8884

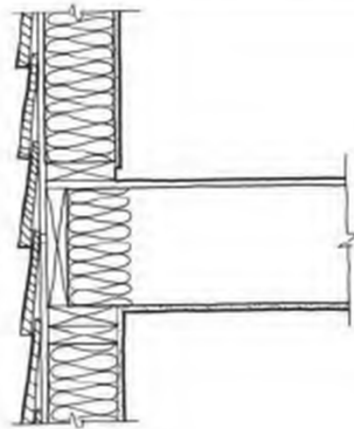
Class Overview:

- 3-D model review
- Wall section drawing review
- Building Section [High-performance]
- Windows and doors

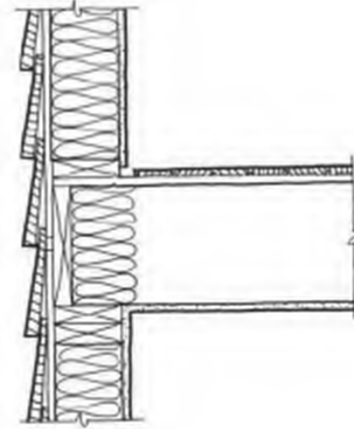
Upcoming:

- Section pinup
- Roofs & types
- Roofs details
- Wall section analysis
- 3-D model submission

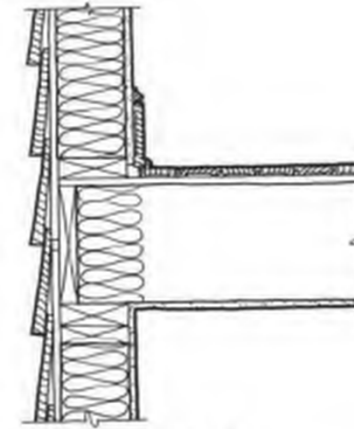
Step 4
Wiring, insulation,
and vapor retarder
are added; walls
are plastered



Step 5
Flooring is installed



Step 6
Detail is completed
with baseboard

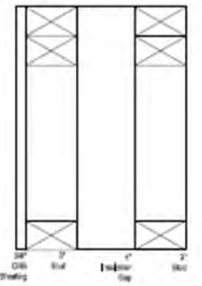


I. Rehearsing the Construction Sequence of
a Wood-Frame Dwelling: Steps 4-6

High Performance House

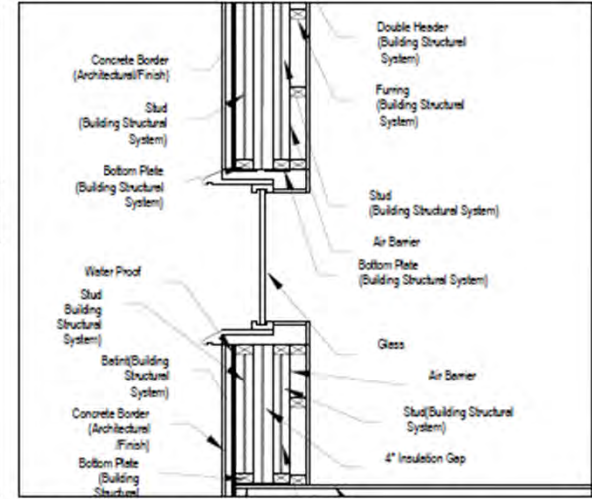


Student Name:
Junhao Tan
Institute Office:
Department of Architecture Technology
100 Jay Street, Brooklyn, New York

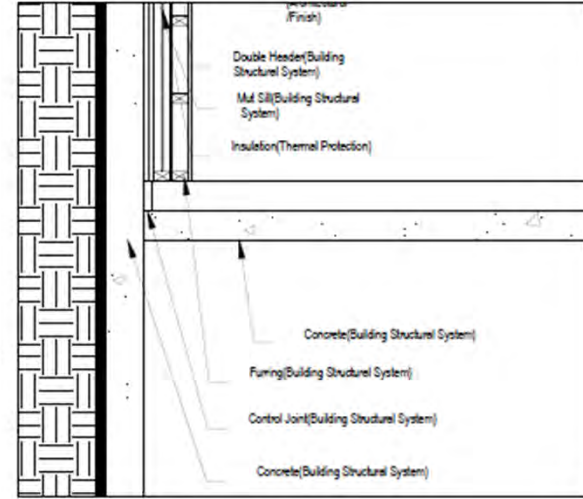


DATE REVISION	12/10/2019
REVISION	

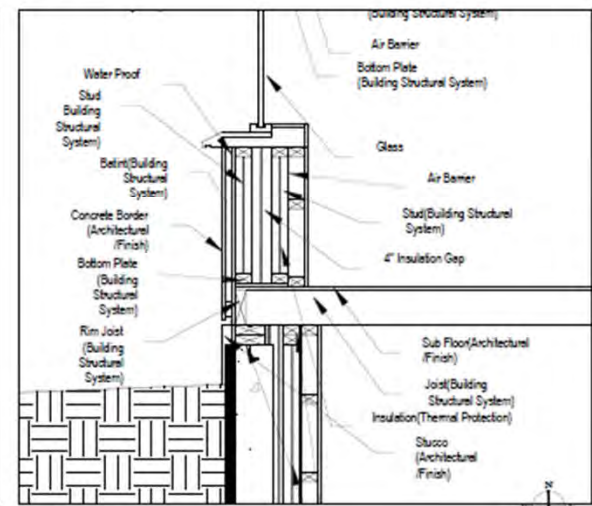
DWG TITLE			
Wall Section Detail			
SCALE & SIGNATURE	TITLE	DATE	PROJECT NO.
		12/10/2019	100X-101-00
			1 OF X



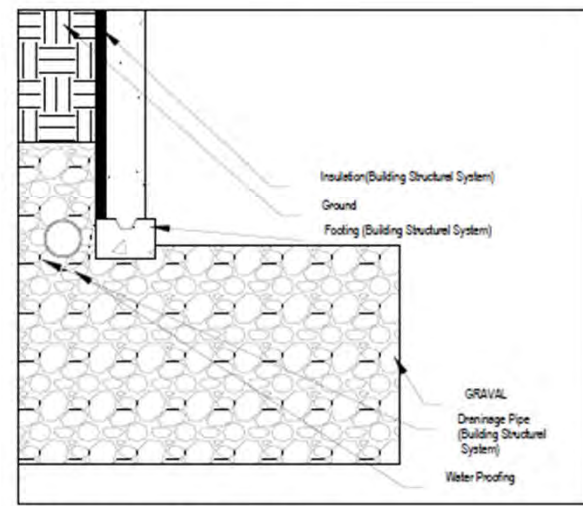
02 Wall Section of window detail



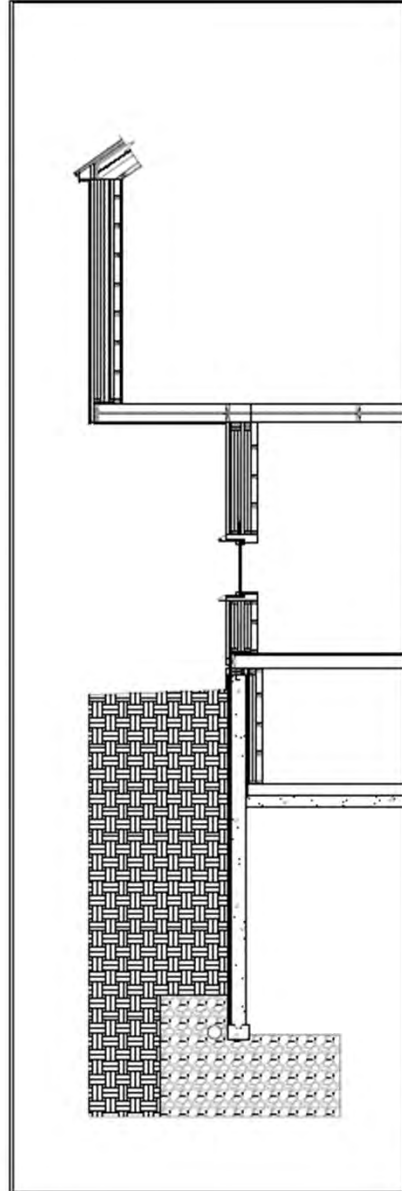
01 Wall Section of basement floor detail



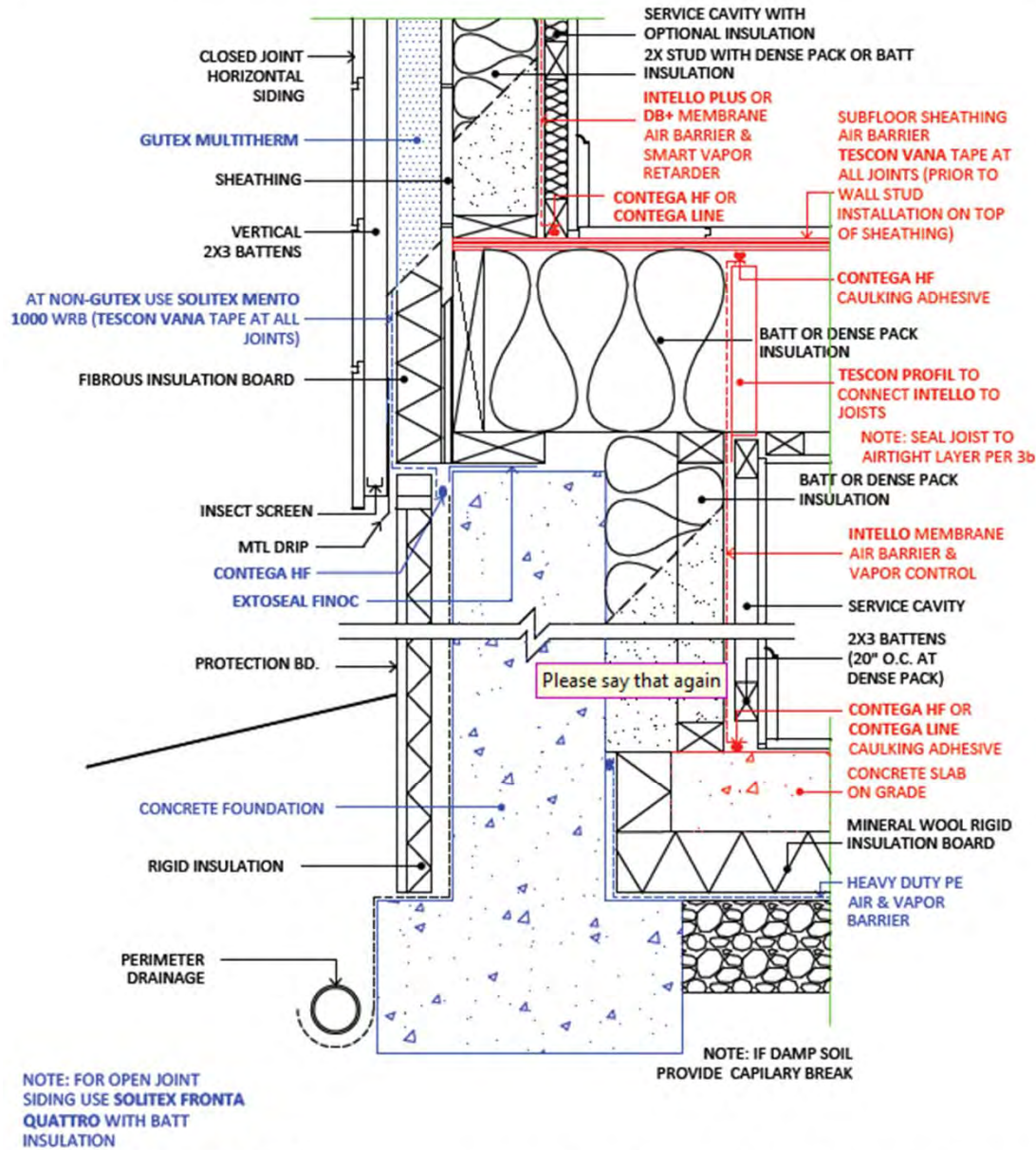
03 Wall Section of first floor detail



04 Wall Section of footing detail



1b CONDITIONED CELLAR - OUTBOARD INSULATION



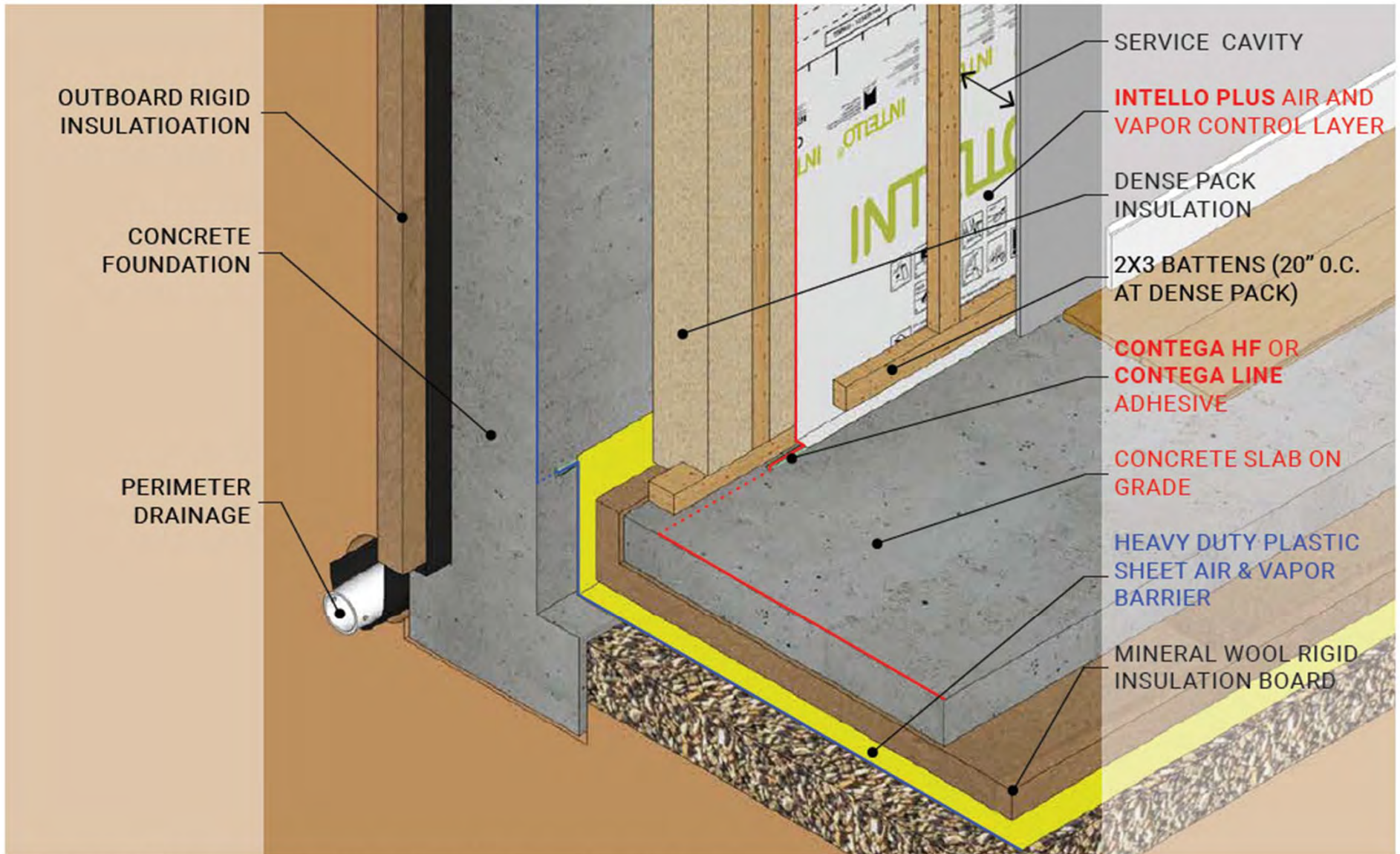
CONTINUOUS
EXTERIOR
INSULATION
WITH CHASE
WALL

SMART
ENCLOSURE

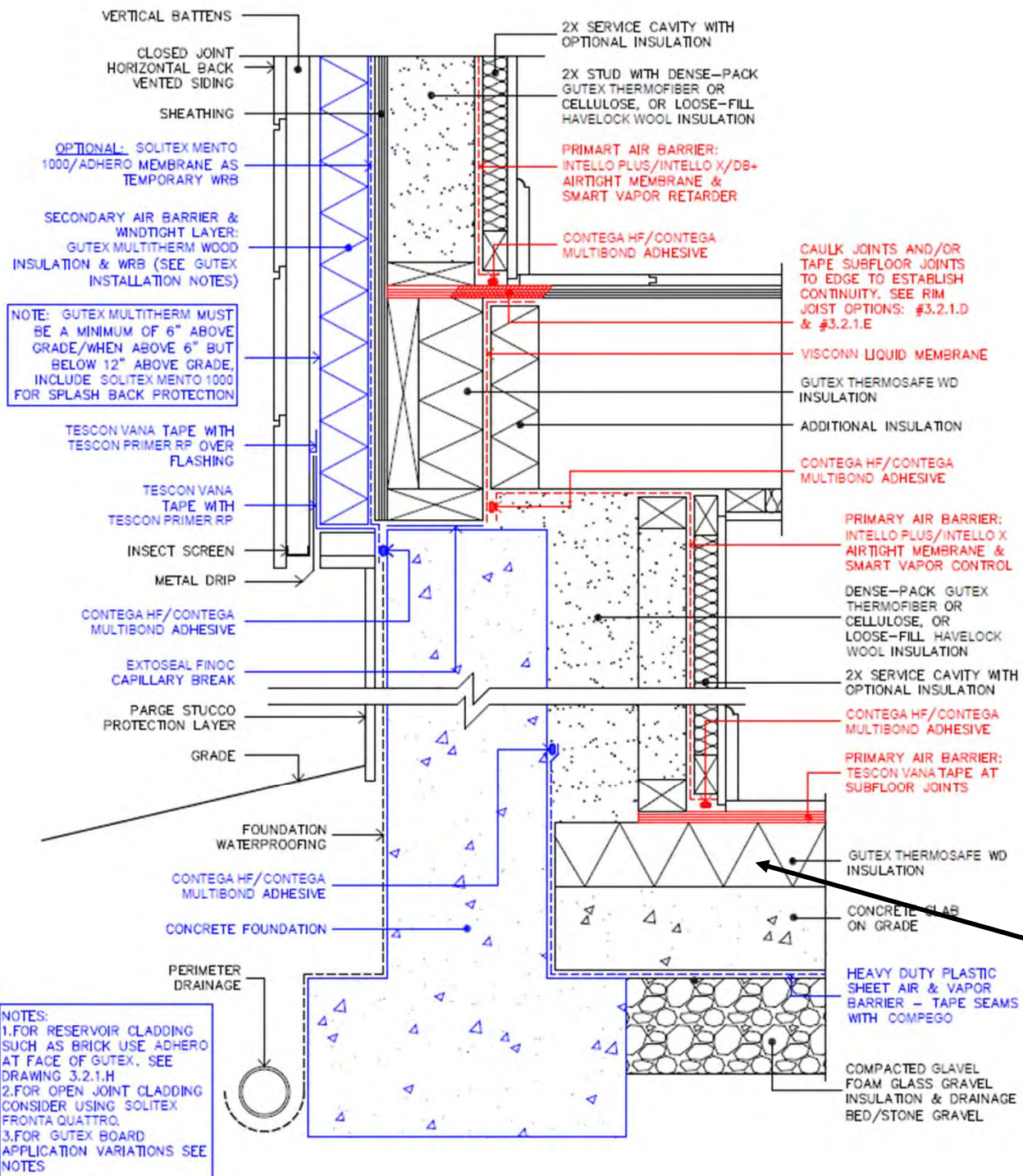
Option 1

SECTION DETAIL

Disclaimer: Note that these drawings are diagrammatic and are not intended for direct use. A professional architect, engineer or builder must evaluate and customize per specific job requirements.



View down at ground connection



CONTINUOUS EXTERIOR INSULATION WITH CHASE WALL

SMART ENCLOSURE

Option 1

Insulation above slab

NOTES:
 1. FOR RESERVOIR CLADDING SUCH AS BRICK USE ADHERO AT FACE OF GUTEX. SEE DRAWING 3.2.1.H
 2. FOR OPEN JOINT CLADDING CONSIDER USING SOLITEX FRONTO QUATTRO.
 3. FOR GUTEX BOARD APPLICATION VARIATIONS SEE NOTES



Image: Stevens Institute of Technology - SURE House

475 High Performance Building Supply
<https://foursevenfive.com/>

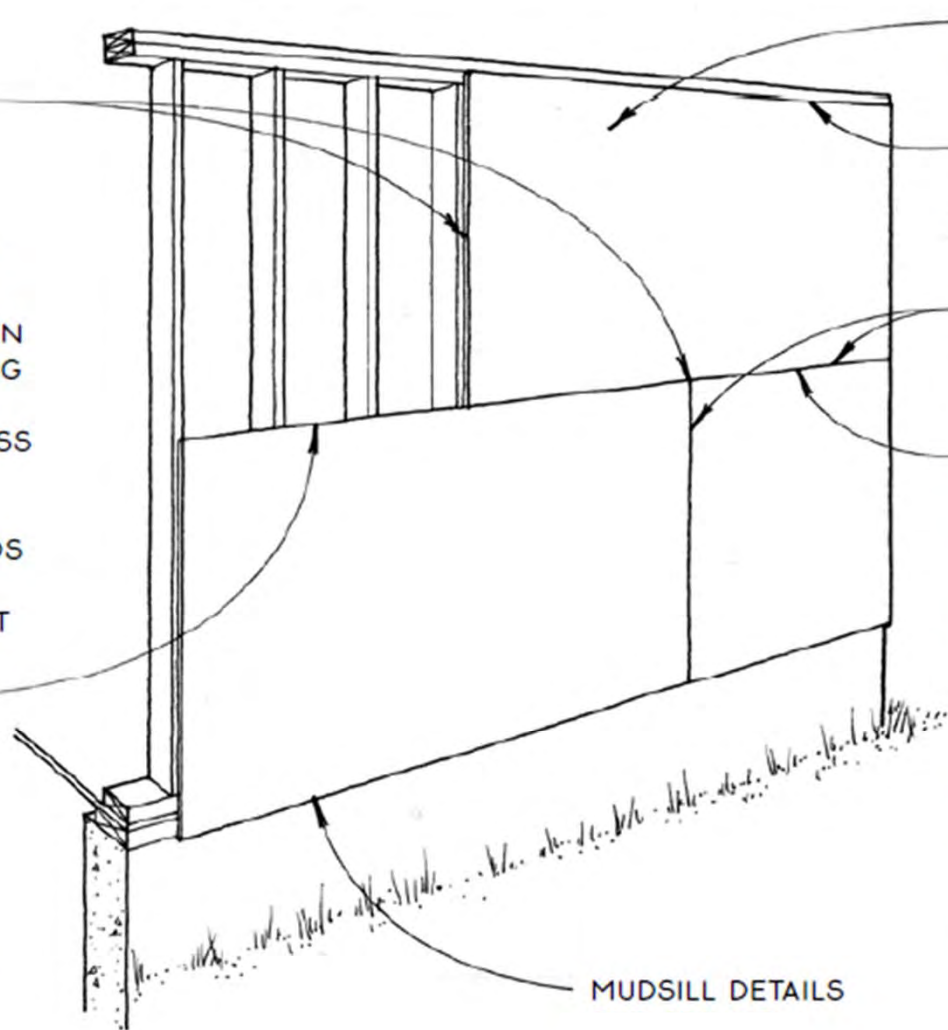
CityTech Solar Decathlon house 2015 photograph A. Aptekar



STAGGER VERTICAL JOINTS BETWEEN STRUCTURAL PANELS.

WHEN NOT ENGINEERED AS BRACING, SHEATHING PANELS MAY PAN BETWEEN STUDS WITHOUT BLOCKING DEPENDING ON STUD SPACING, PANEL THICKNESS & SIDING MATERIAL. $\frac{3}{8}$ -IN. SHEATHING IS RECOMMENDED FOR STUDS AT 16 IN. O.C. & $\frac{1}{2}$ -IN. SHEATHING FOR STUDS AT 24 IN. O.C. VERIFY SPAN RATING ON PANELS.

NOTE
HORIZONTAL PANELS SHOWN IN THIS DETAIL MAY BE REPLACED WITH VERTICAL PANELS.



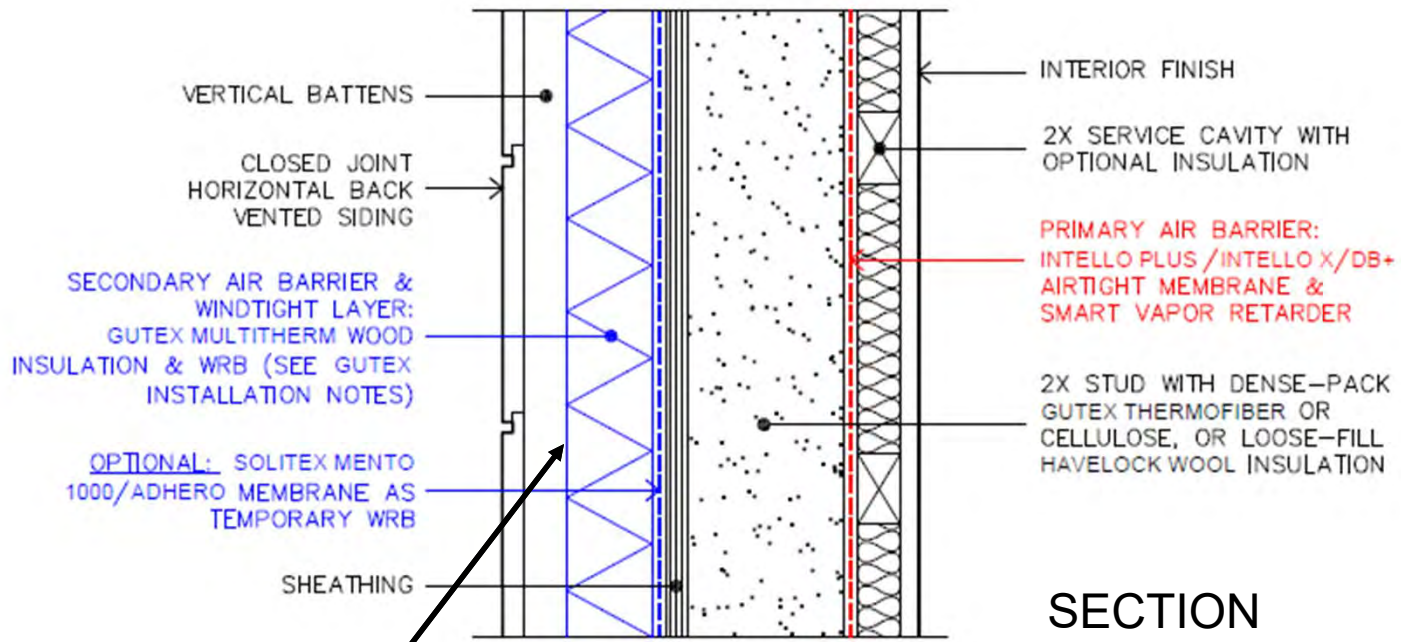
PANEL NAILING SCHEDULE

UPPER EDGE OF PANEL ALIGNS WITH LOWER TOP PLATE.

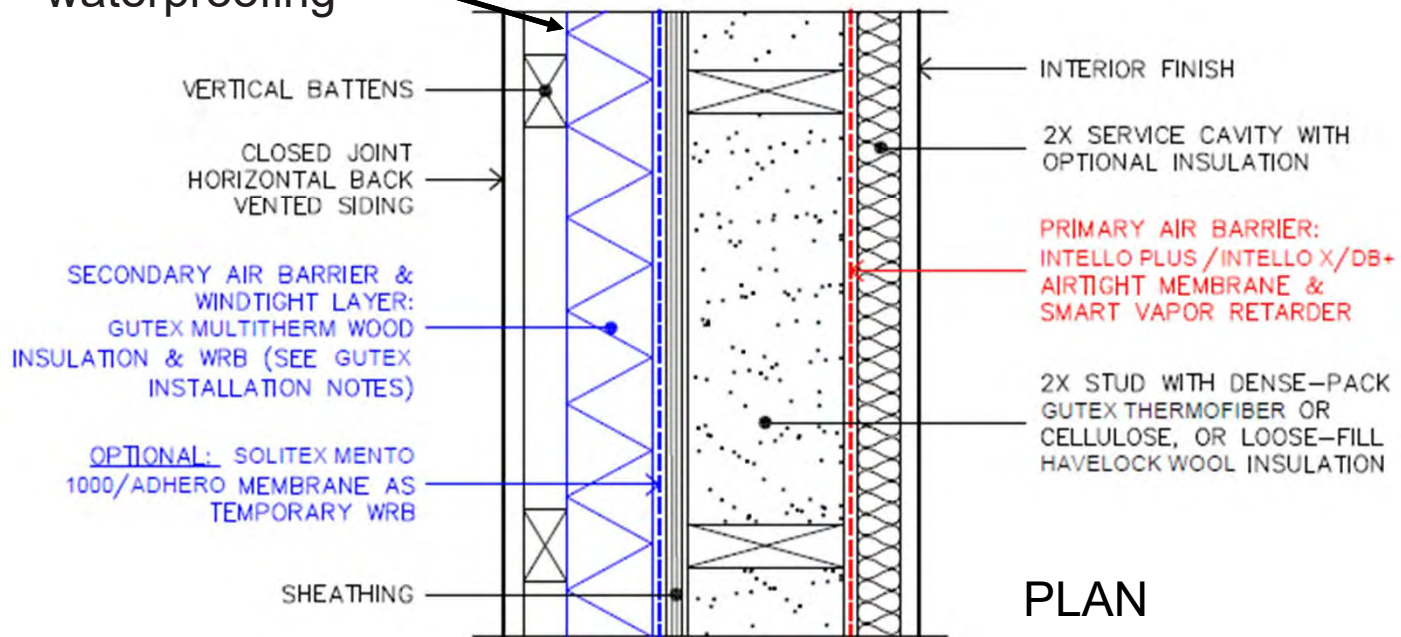
LEAVE $\frac{1}{8}$ -IN. SPACE AT ALL PANEL EDGES.

BLOCKING BEHIND PANEL JOINTS IS REQUIRED WHEN HORIZONTAL PANELS ARE ENGINEERED FOR LATERAL BRACING.

NOTE.
THIS DETAIL IS APPROPRIATE ONLY IF STUDS ARE PRECUT AT $90\frac{3}{4}$ IN. OR LESS & THE SUBFLOOR SITS DIRECTLY ON THE MUDSILL, SEE 33C & D, OR IF A SLAB FOUNDATION IS USED.



Include secondary waterproofing



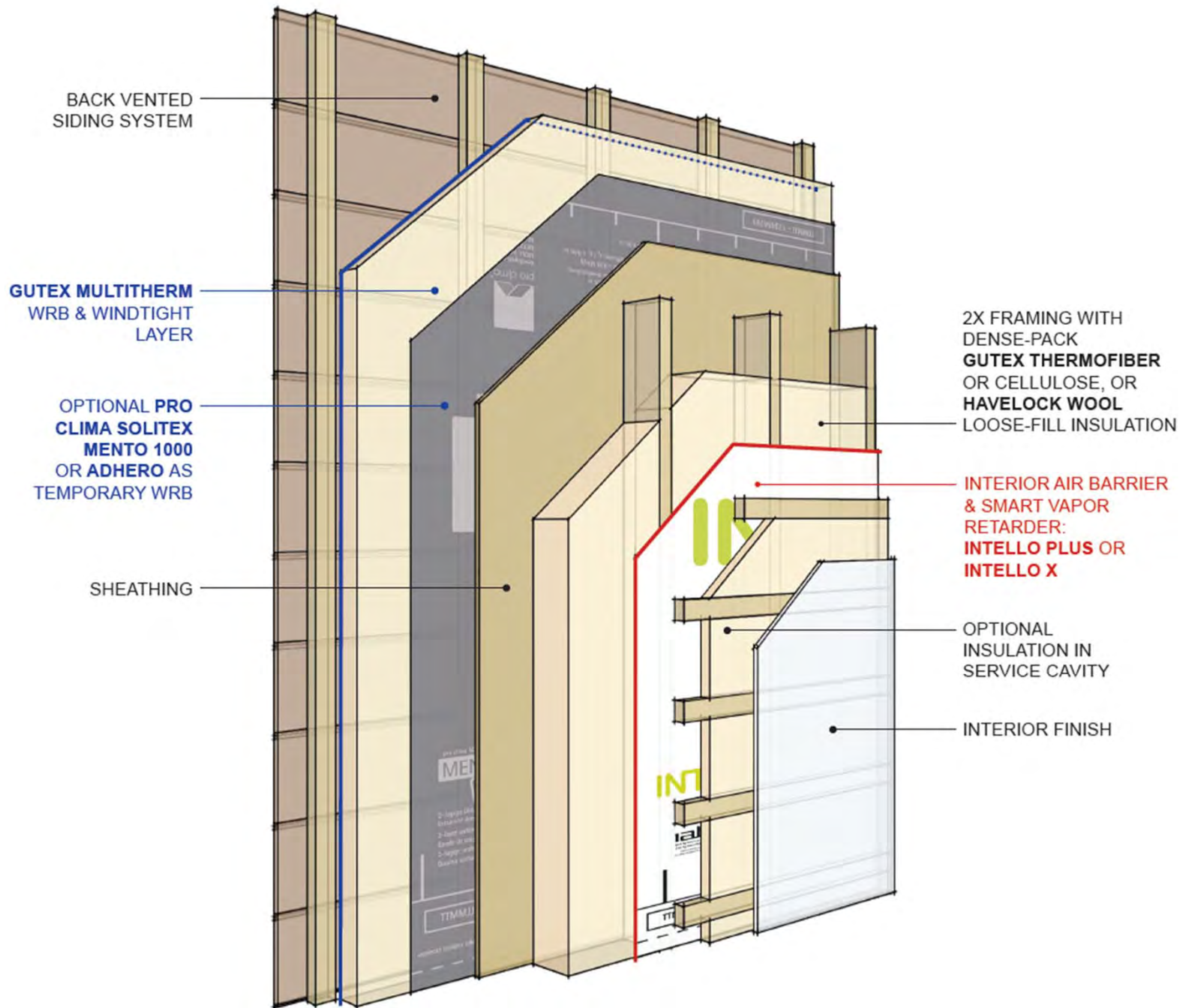
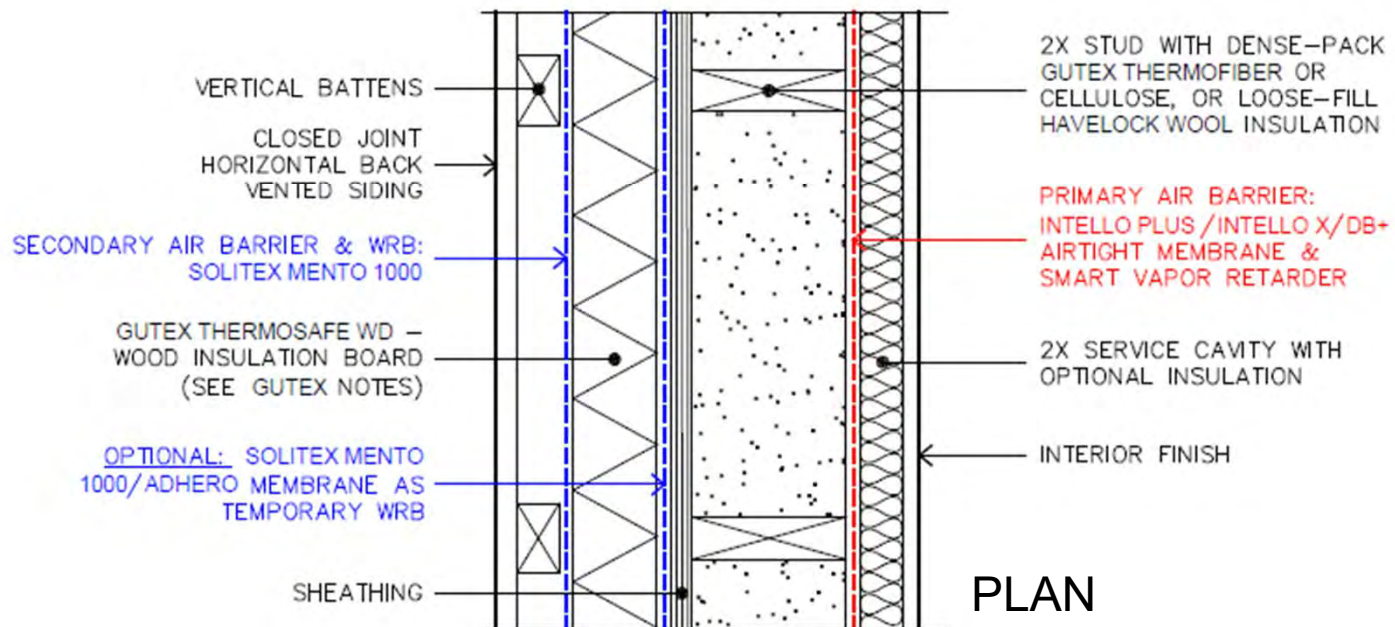
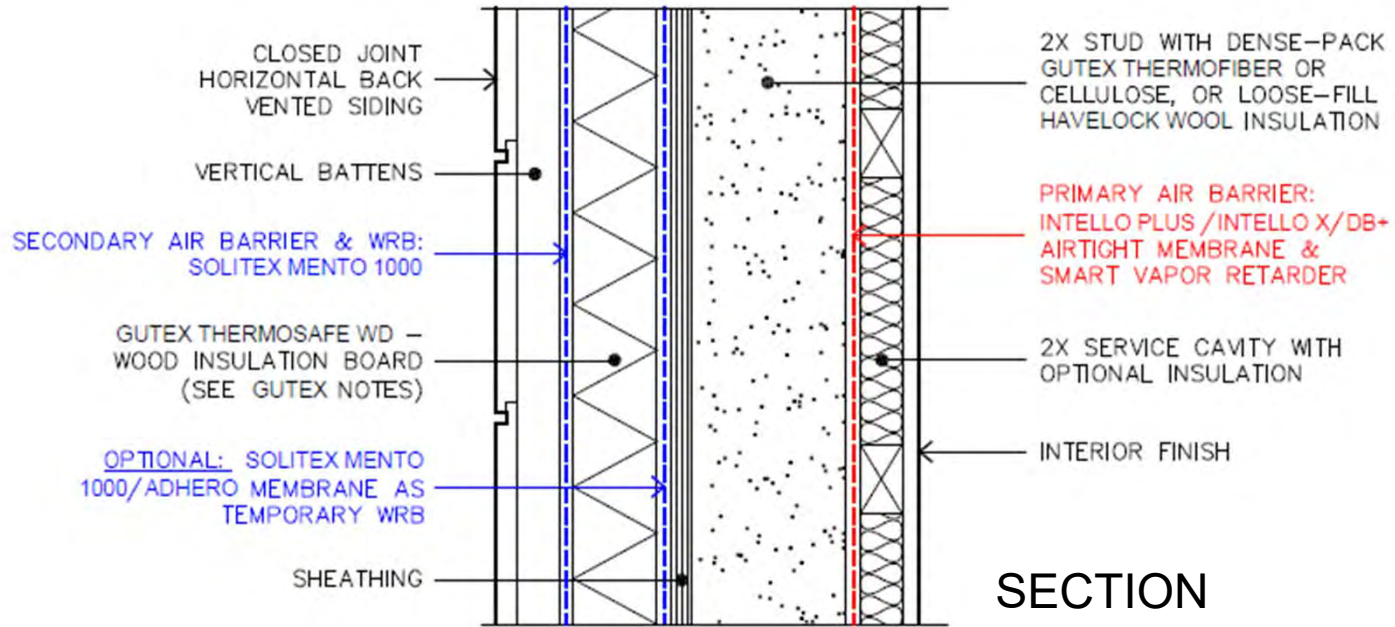
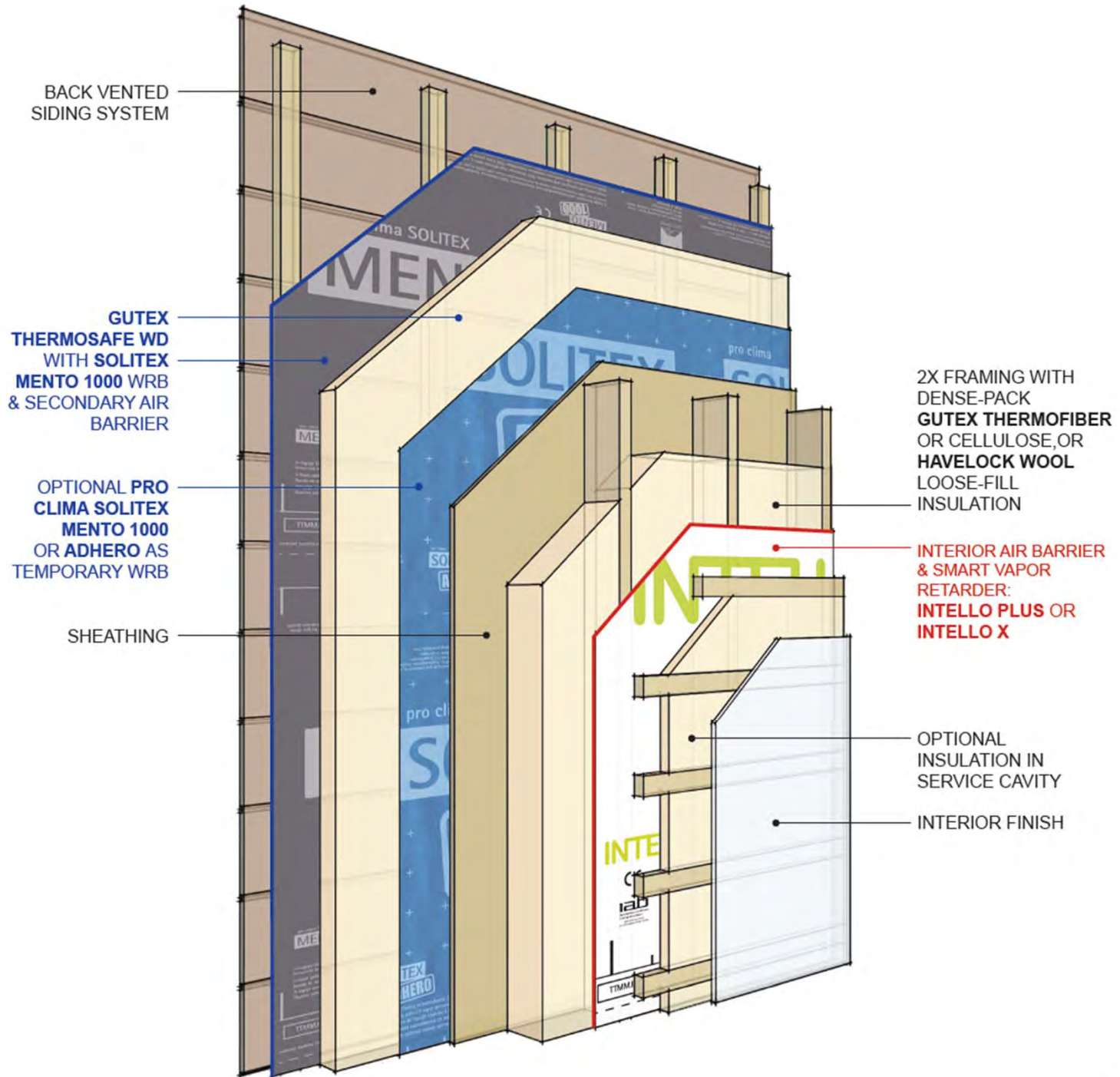




Photo: Walsh Const.







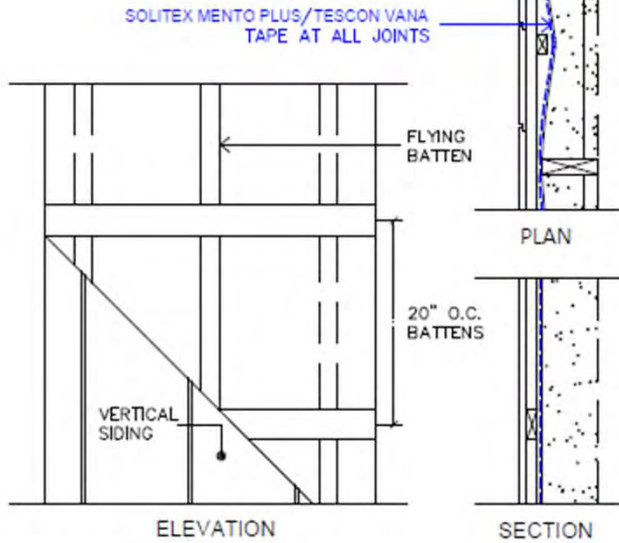
<https://www.woodworks.org> Integrating Passive House into Everyday Enclosure Design 2019 Pax Futura, 2018 Seattle, WA - NK Architects



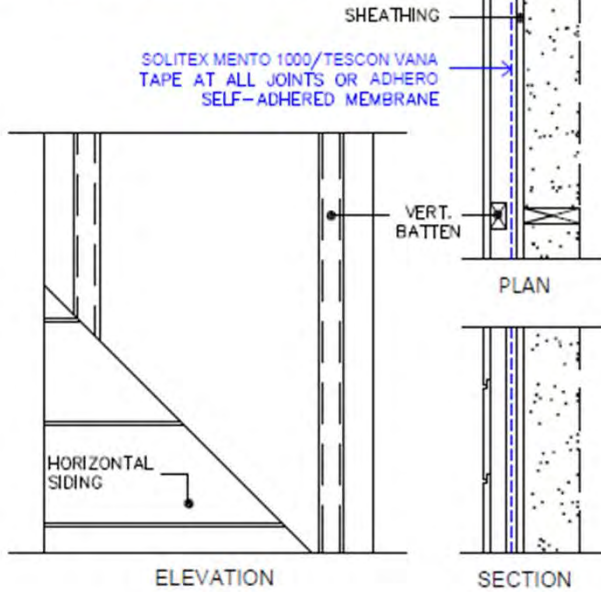
Photo: Vivian Usu

<https://www.woodworks.org> Integrating Passive House into Everyday Enclosure Design 2019 Pax Futura, 2018 Seattle, WA - NK Architects

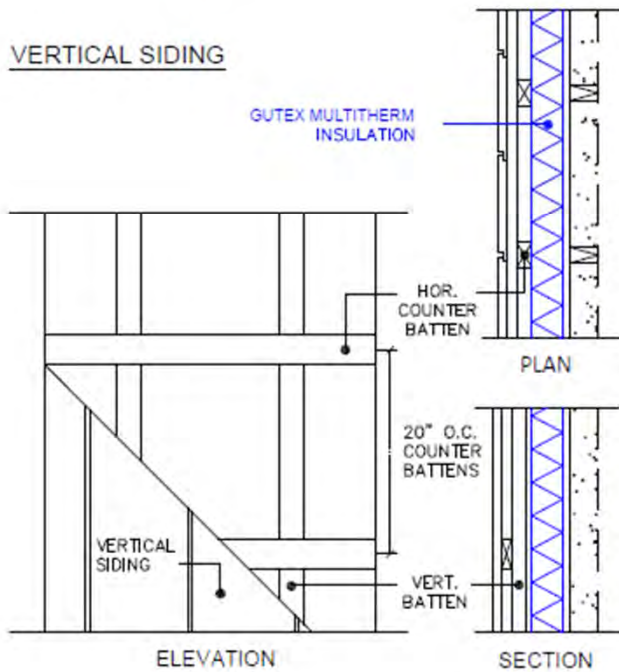
VERTICAL SIDING WITHOUT EXTERIOR SHEATHING



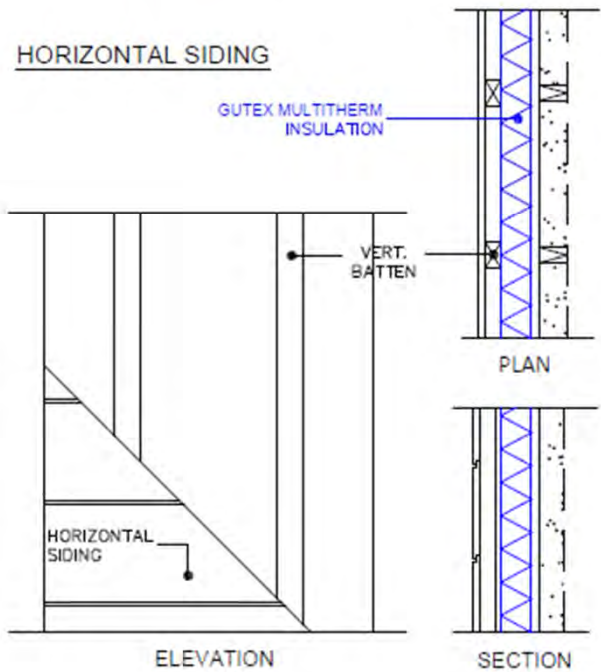
HORIZONTAL SIDING WITHOUT EXTERIOR INSULATION



VERTICAL SIDING



HORIZONTAL SIDING



VERTICAL SIDING

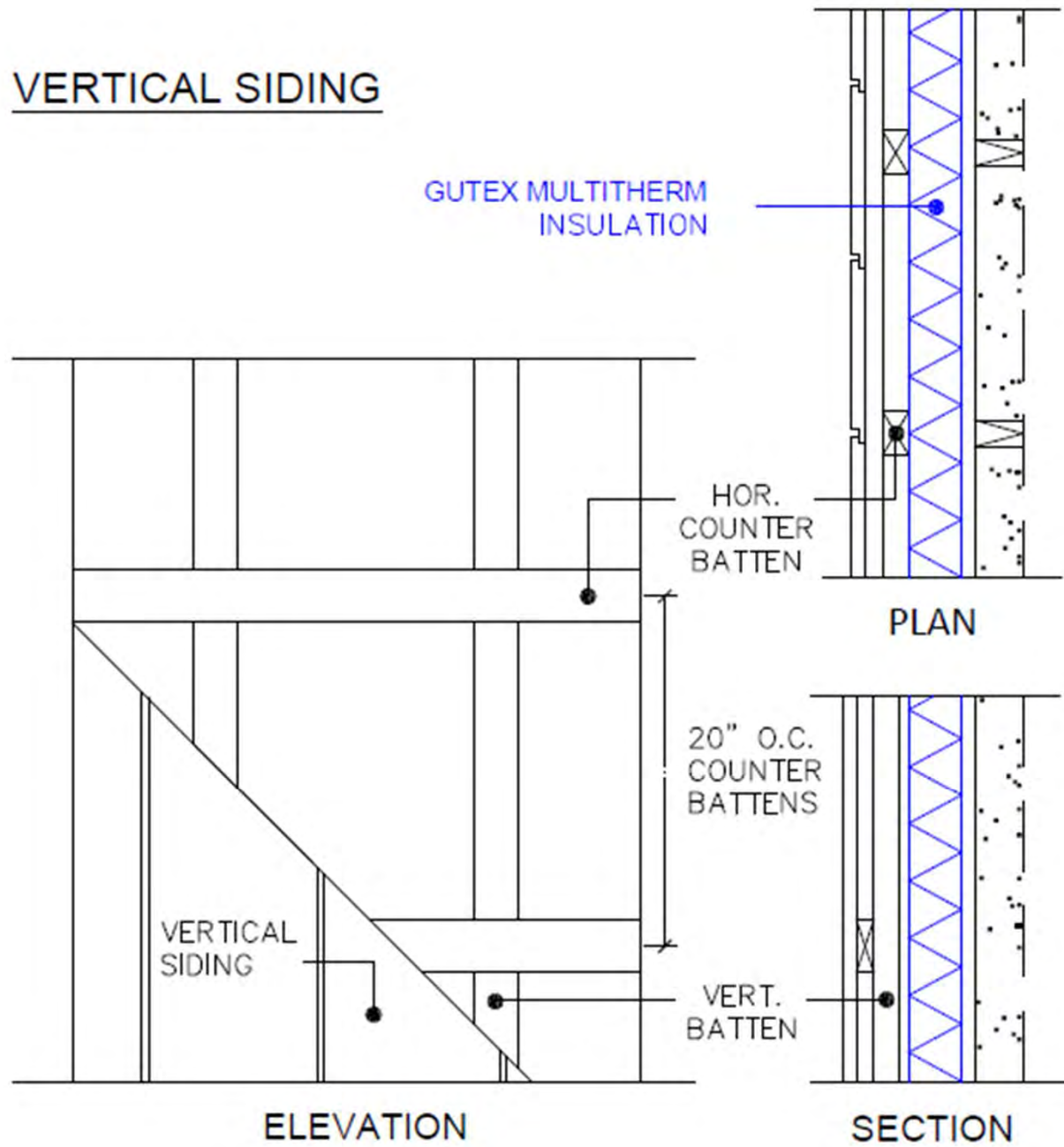
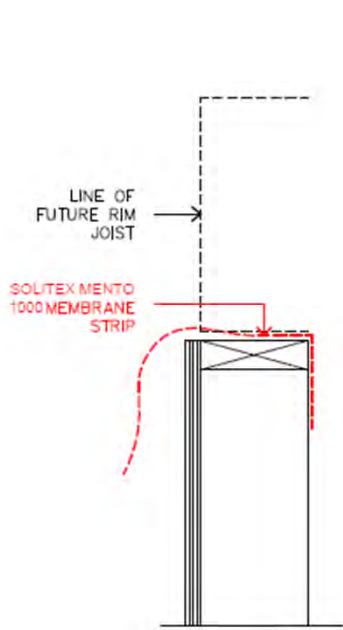


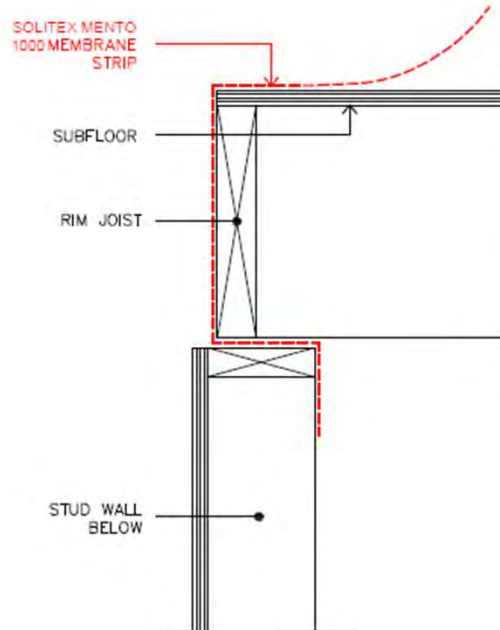


Image: Pro Clima

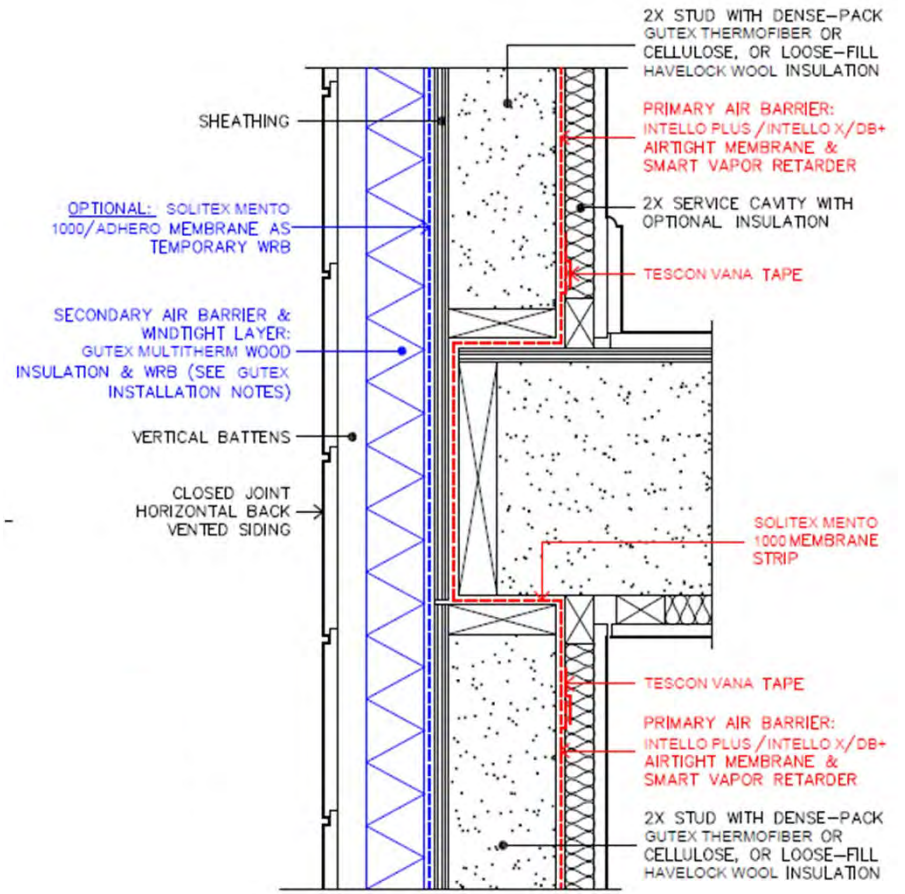
475 High Performance Building Supply
<https://foursevenfive.com/>



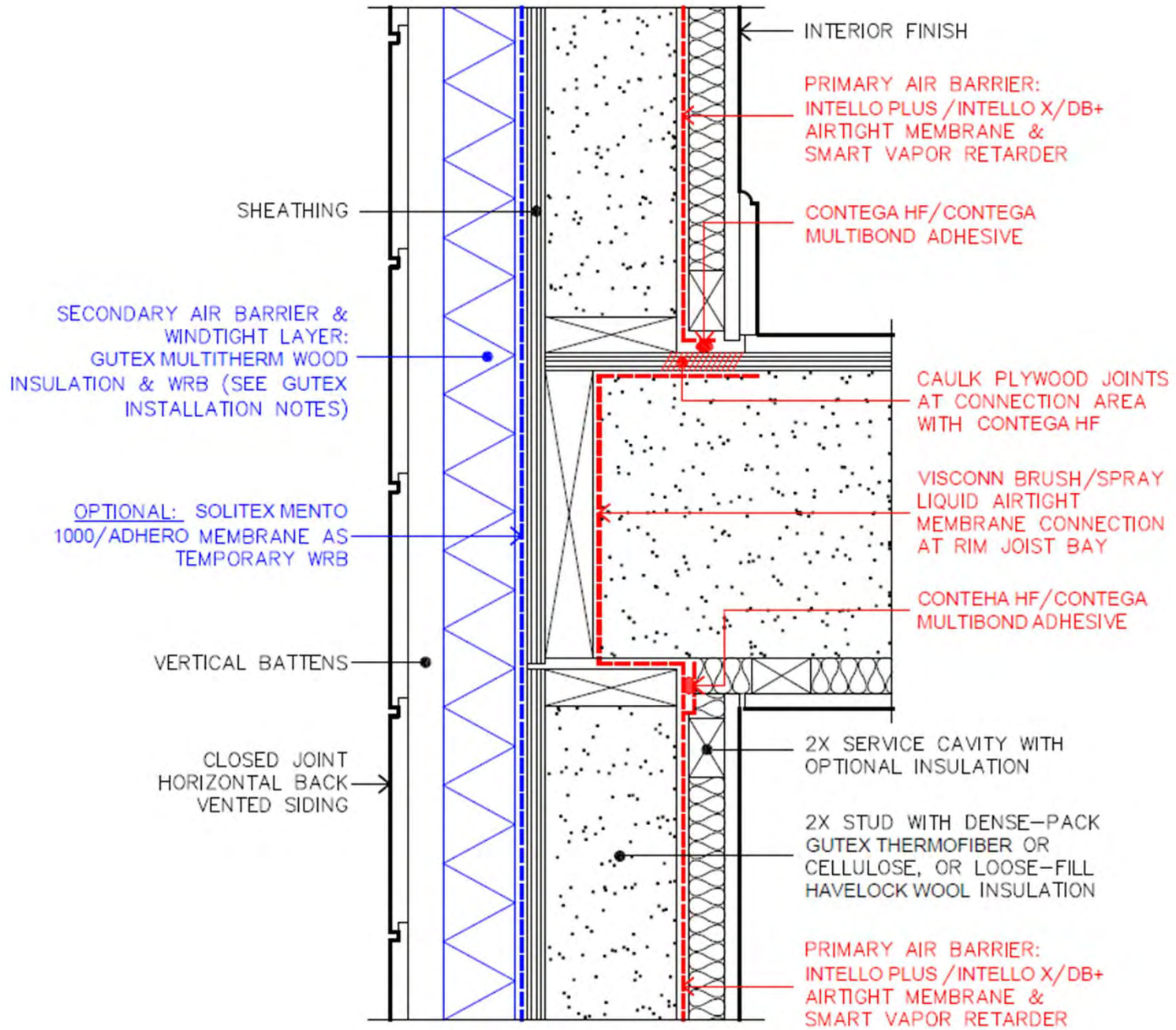
STEP 1

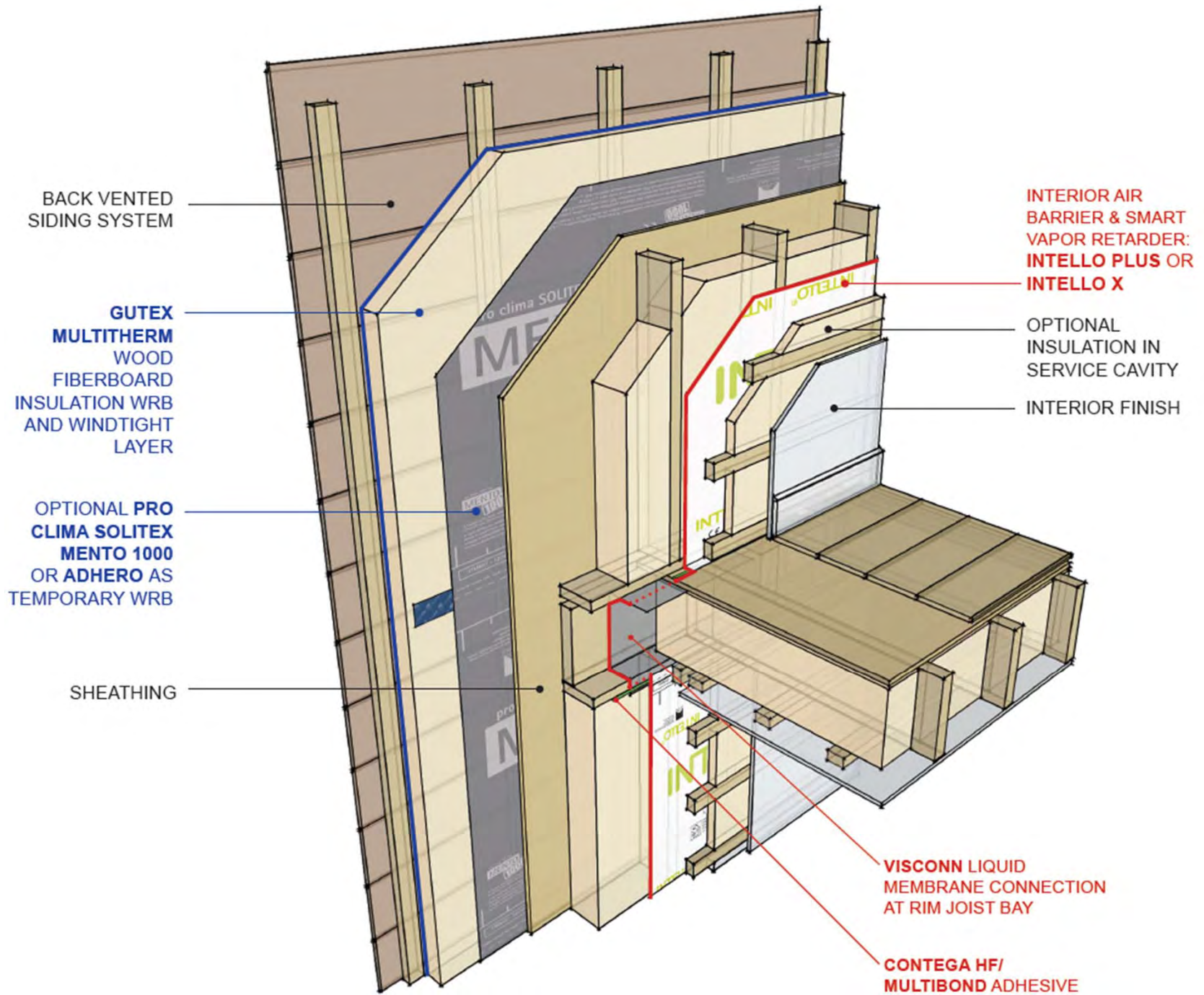


STEP 2



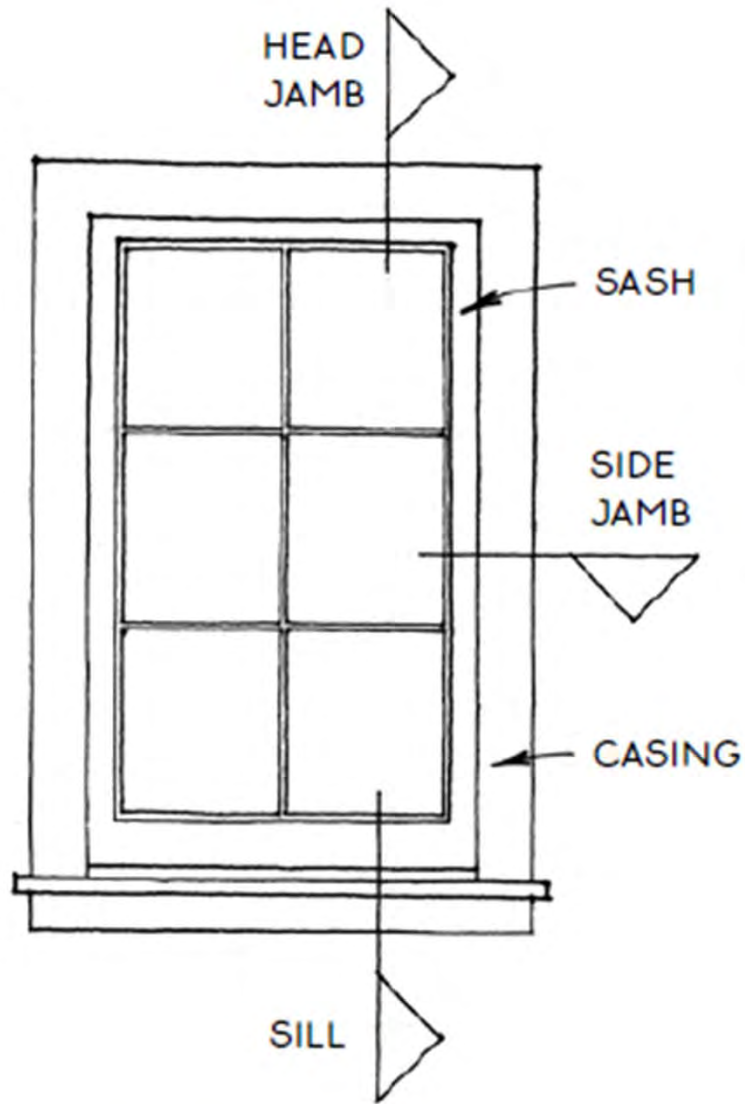
STEP 3



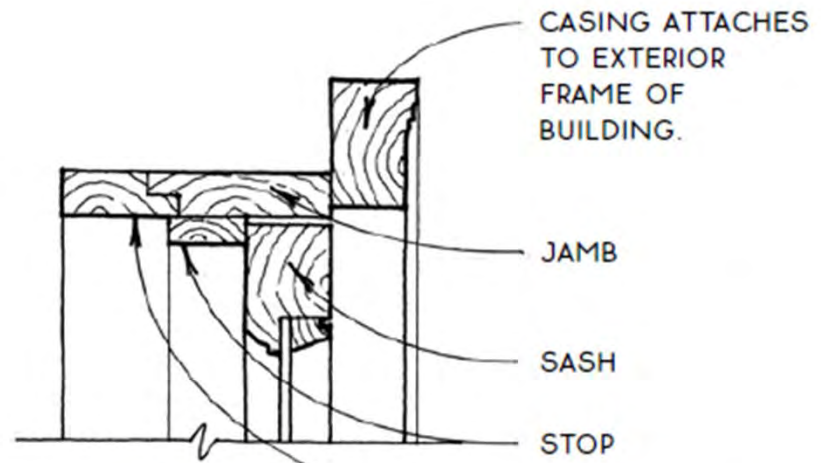




PENETRATIONS:

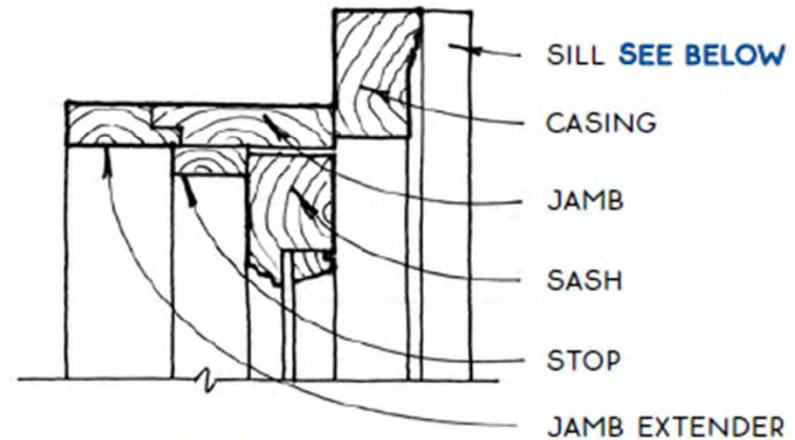


Traditional Window



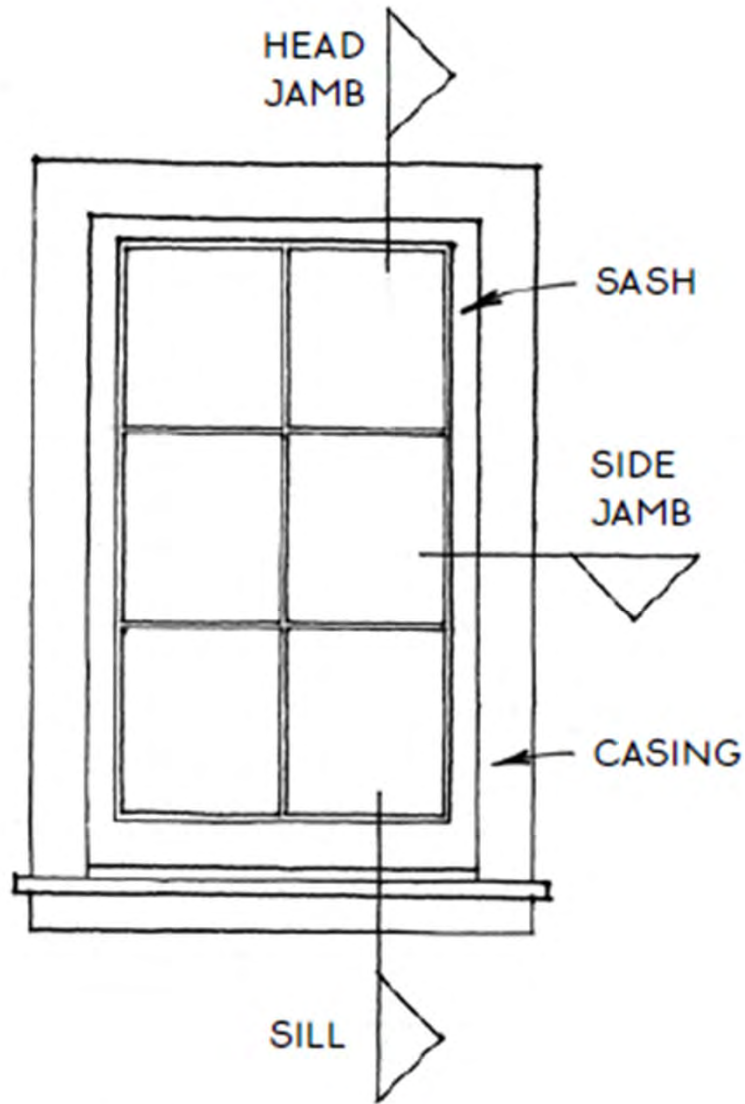
Head Jamb

JAMB EXENDER ADJUSTS JAMB WIDTH TO WALL THICKNESS.

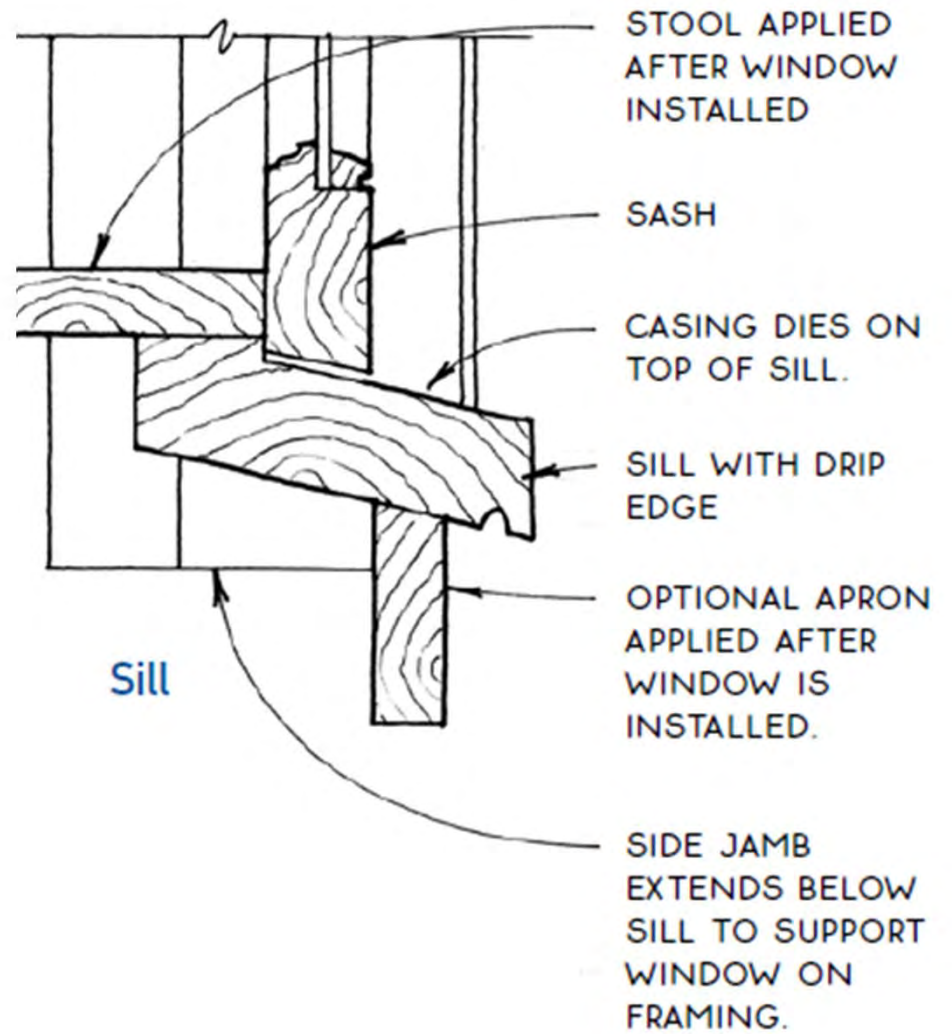


Side Jamb

PENETRATIONS:

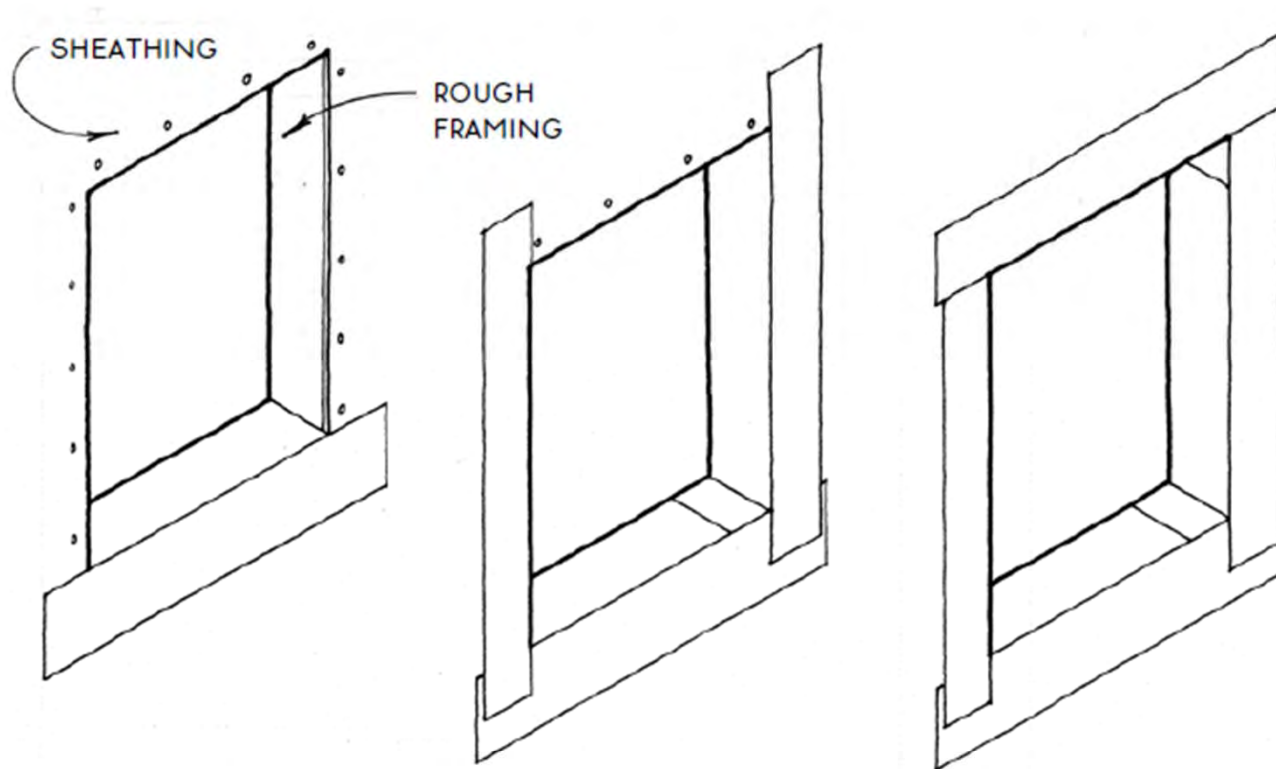


Traditional Window





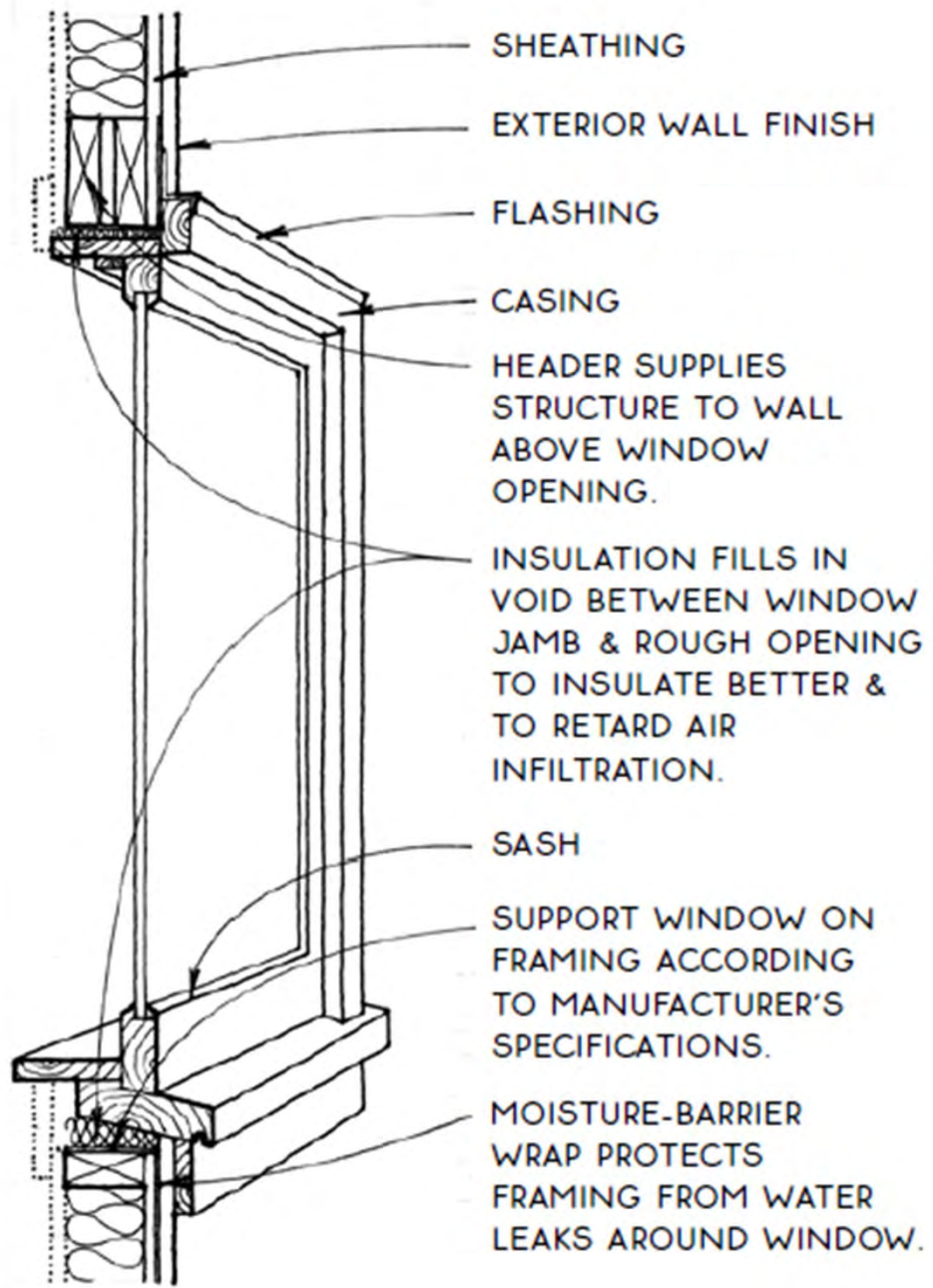
PENETRATIONS:



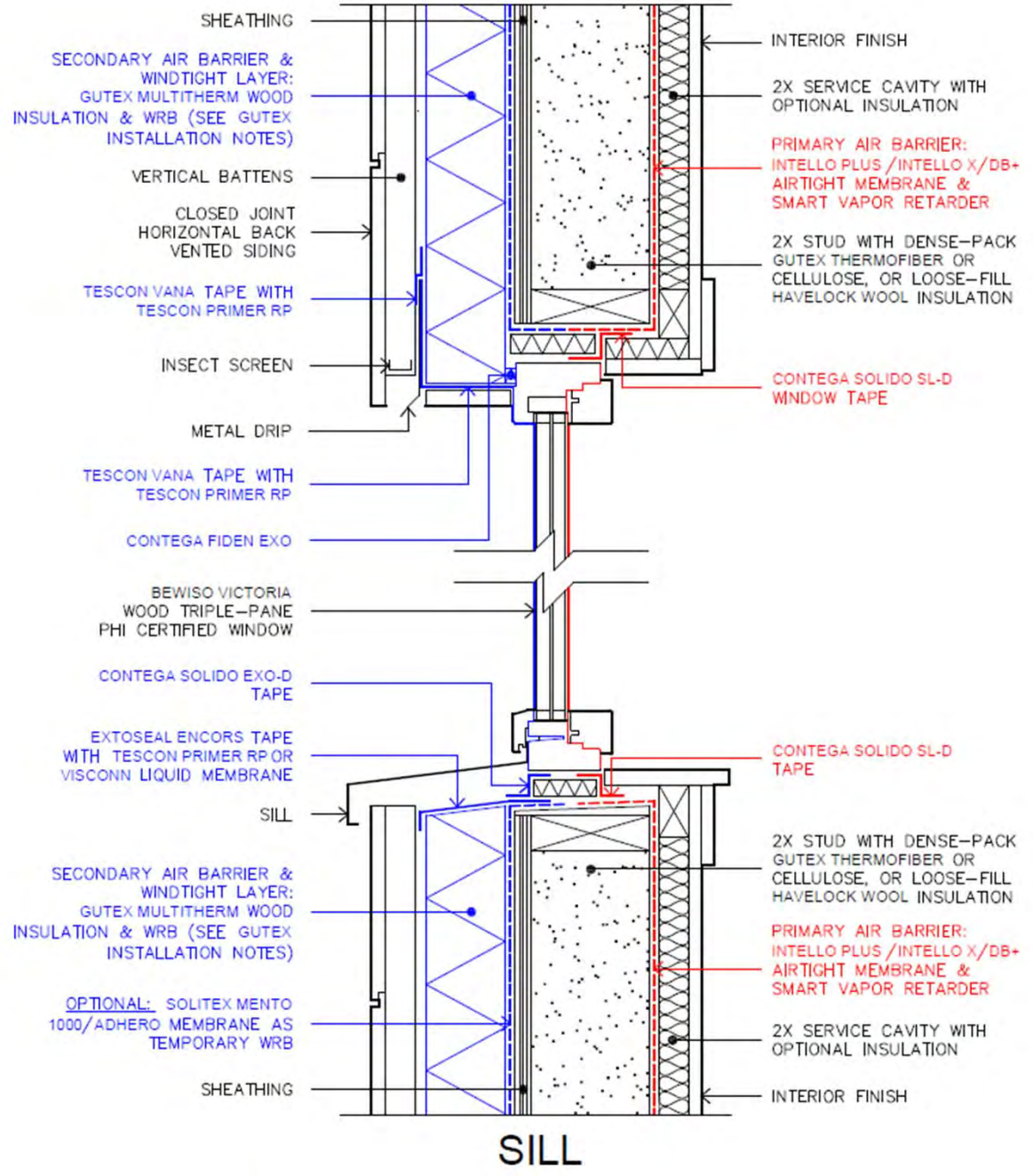
1.) STAPLE MOISTURE BARRIER TO SILL & FOLD 6 IN. DOWN, EXTENDING 6 IN. TO EACH SIDE. DO NOT STAPLE LOWER EDGE, IT WILL LAP WALL MOISTURE BARRIER.

2.) STAPLE MOISTURE BARRIER TO JAMBS OF ROUGH OPENING & FOLD 6 IN. OVER SHEATHING & 6 IN. ABOVE & BELOW ROUGH OPENING.

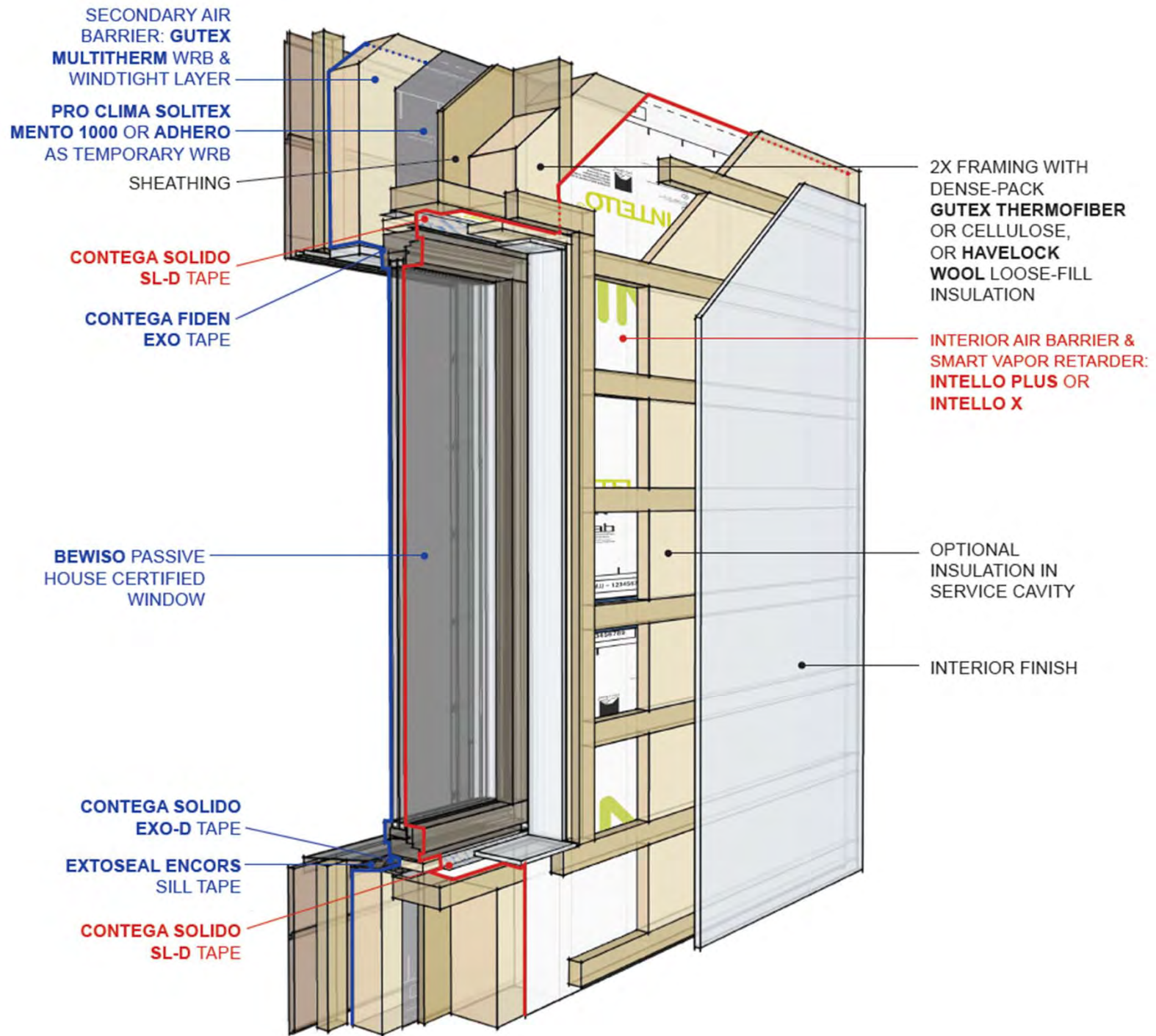
3.) REPEAT STEP 2, BUT FOR TOP OF ROUGH OPENING. LEAVE OUTER EDGES UNSTAPLED FOR FUTURE INTEGRATION WITH WALL MOISTURE BARRIER.



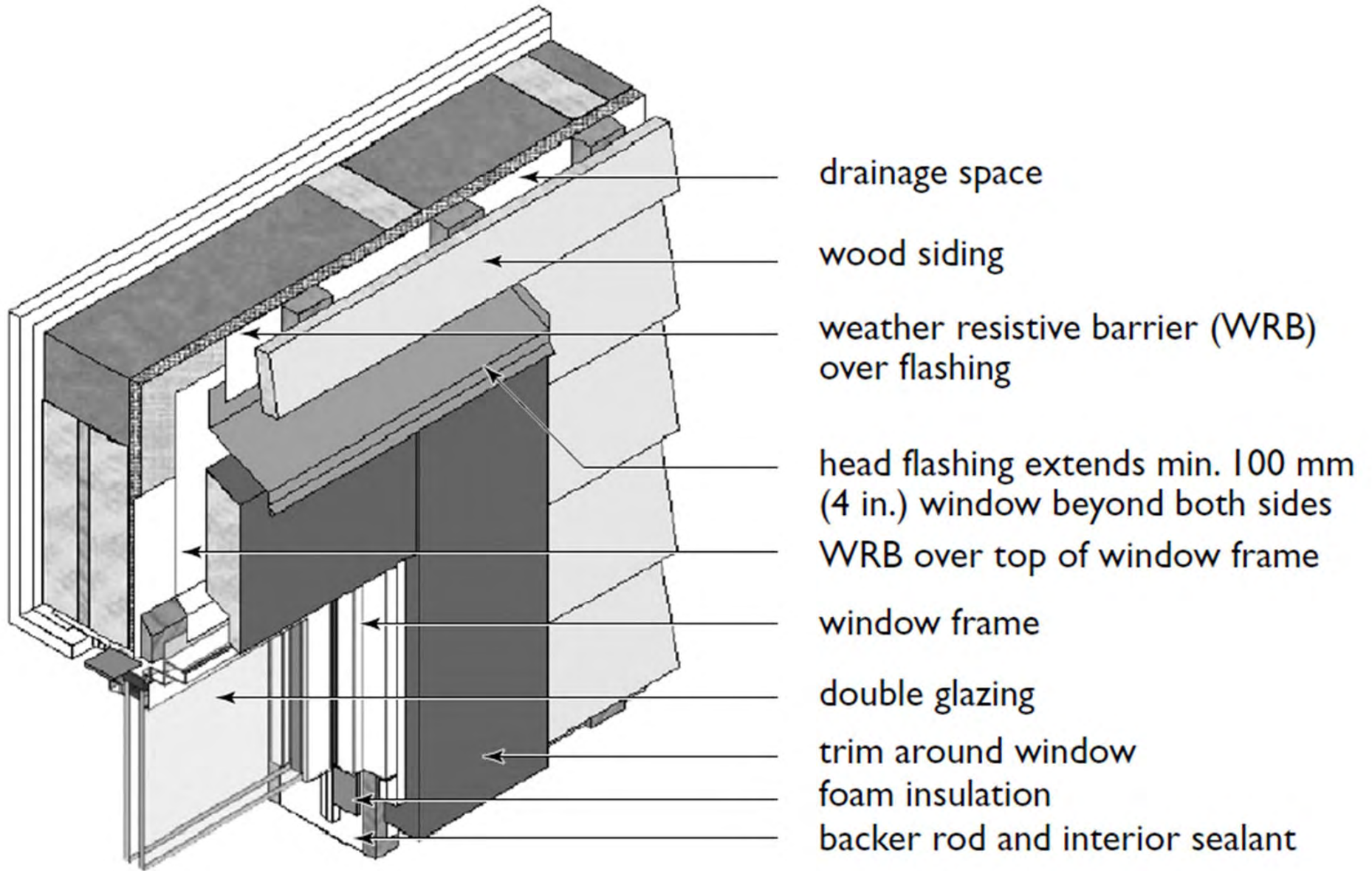
HEAD/JAMB SIM.



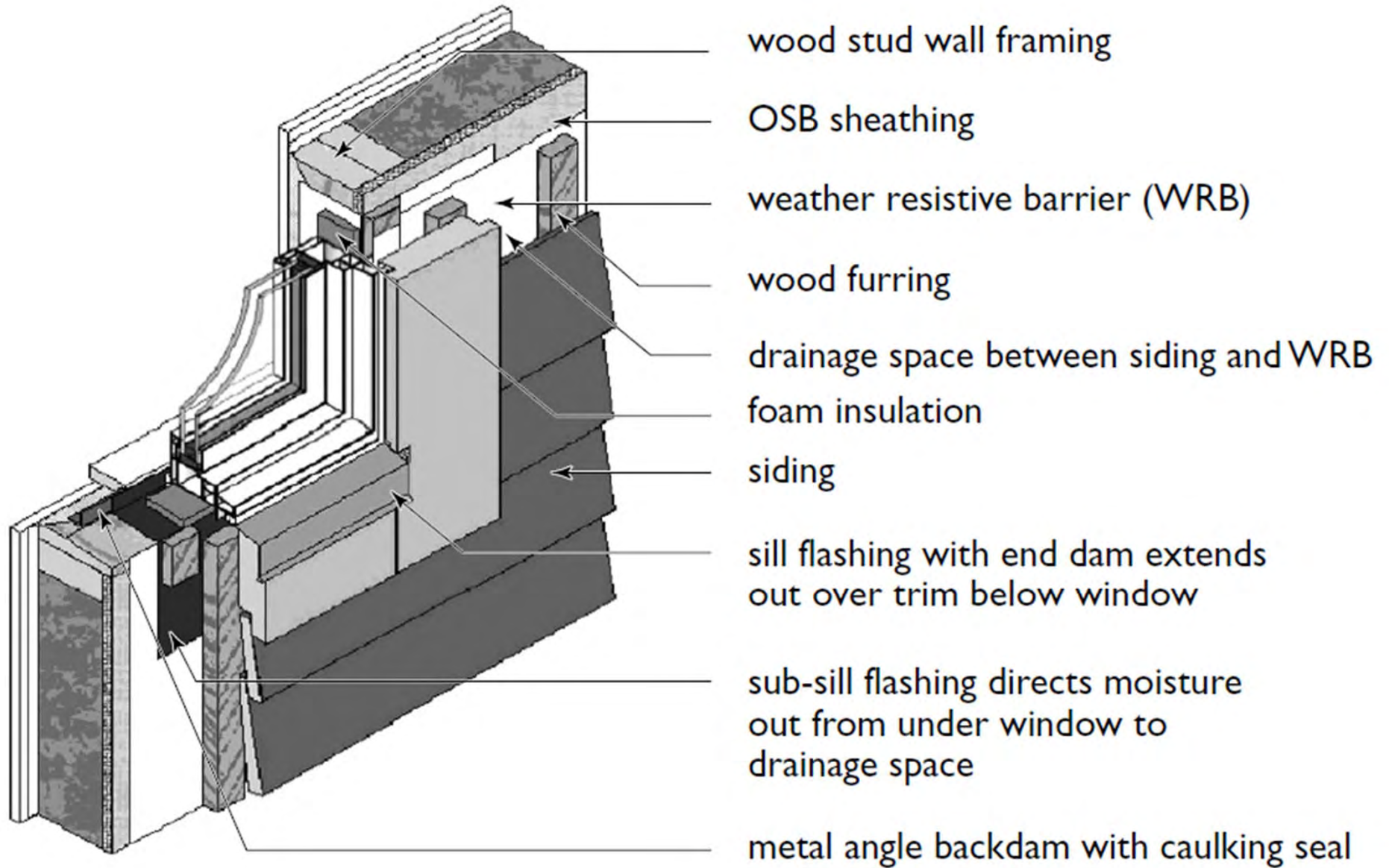
475 High Performance Building Supply
<https://foursevenfive.com/>



Air barrier and moisture management details at window head

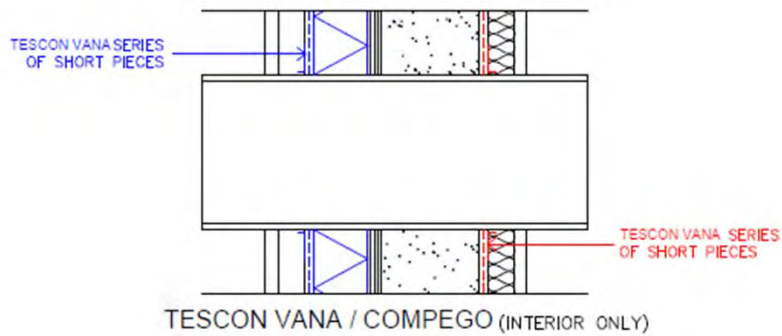
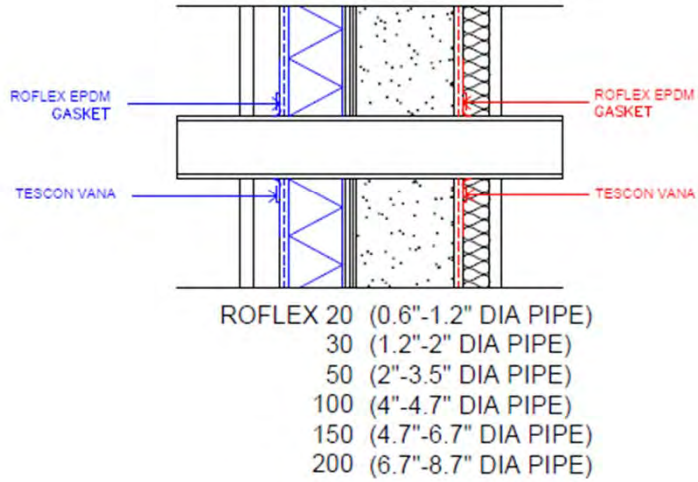
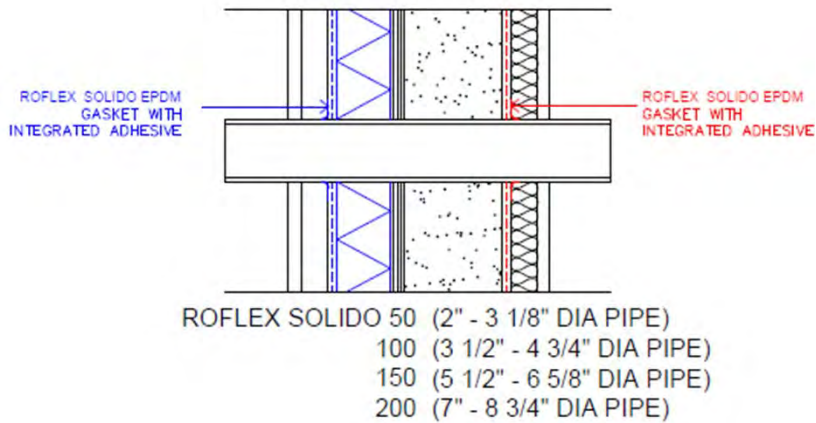


Air barrier and moisture management details at window sill

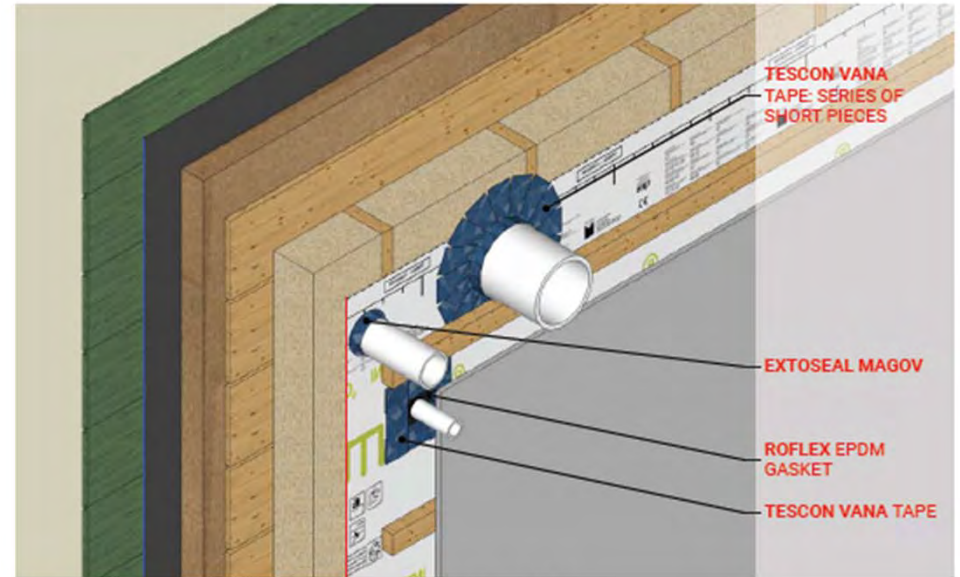




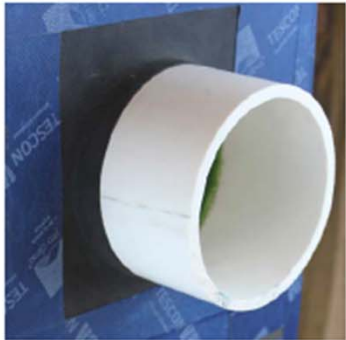
https://foursevenfive.com/blog/building-in-fall-winter-intello-will-protect-you/?utm_source=Airtight+news+and+info+you+can+use&utm_campaign=00d5feb2b6-EMAIL_CAMPAIGN_2019_05_13_08_01_COPY_01&utm_medium=email&utm_term=0_7737f55efa-00d5feb2b6-232811701&goal=0_7737f55efa-00d5feb2b6-232811701&mc_cid=00d5feb2b6&mc_eid=71e734dfe5



Roflex 50 at roof exterior pipe penetration (left)
 Roflex 100 at wall exterior pipe penetration containing HVAC lines to be sealed at interior air barrier (right)



View of pipe penetrations at interior



Roflex 100



Kaflex Mono



Roflex 50



Kaflex Post



Roflex 20



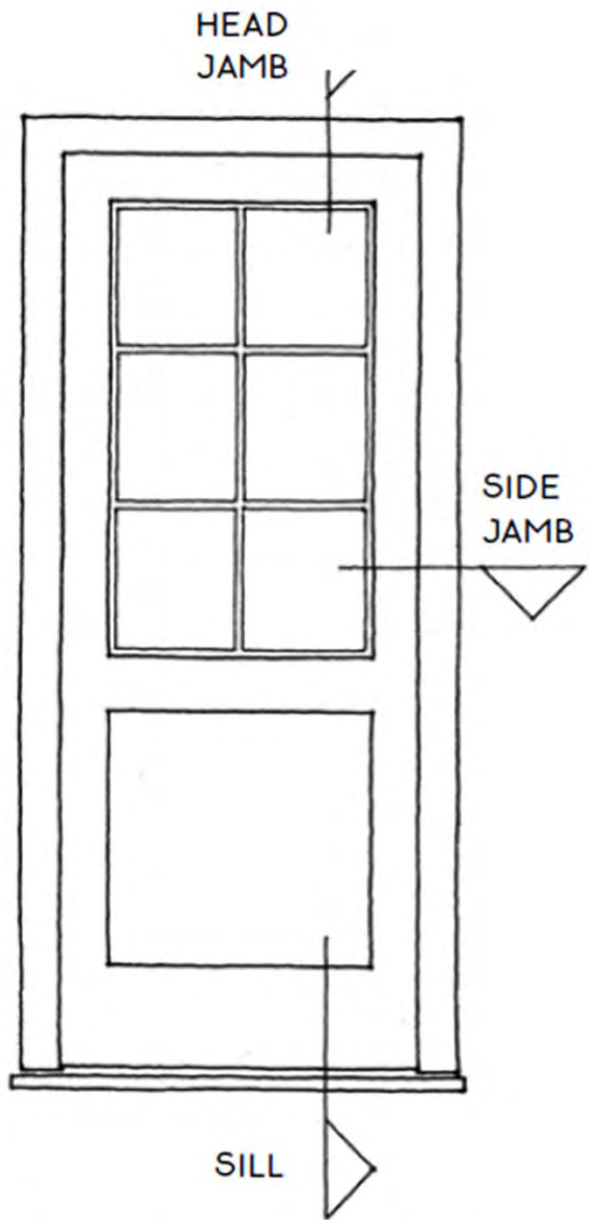
Kaflex Multi



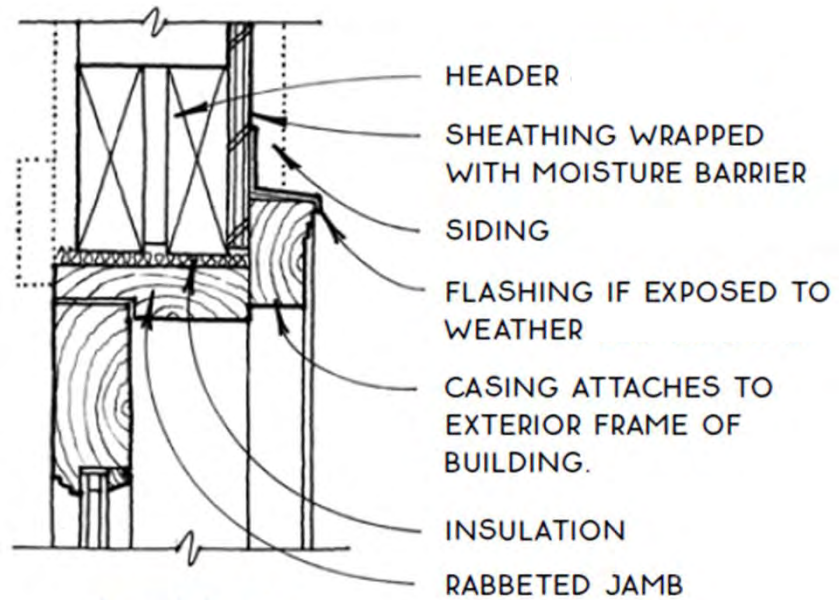
Applying EXTOSEAL Encors and EXTOSEAL Finoc at floor-to-ceiling window (or door). Finoc is used as a capillary break at wall to floor connections. Encors is a self-sealing sill tape for watertight screw/nail penetrations.



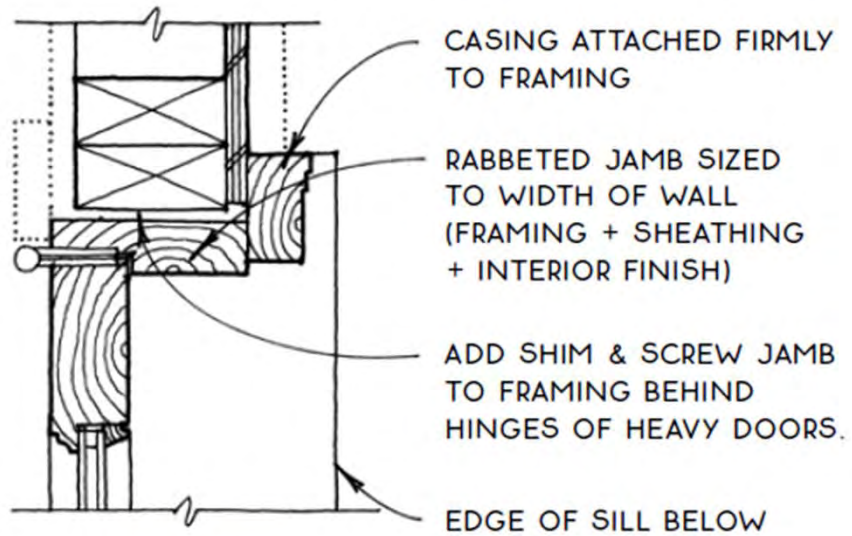
Exterior window with SOLITEX Mento Plus wrapped into rough opening. Taped connections include membrane seams (TESCON Vana) and window frame connections (TESCON Profil).



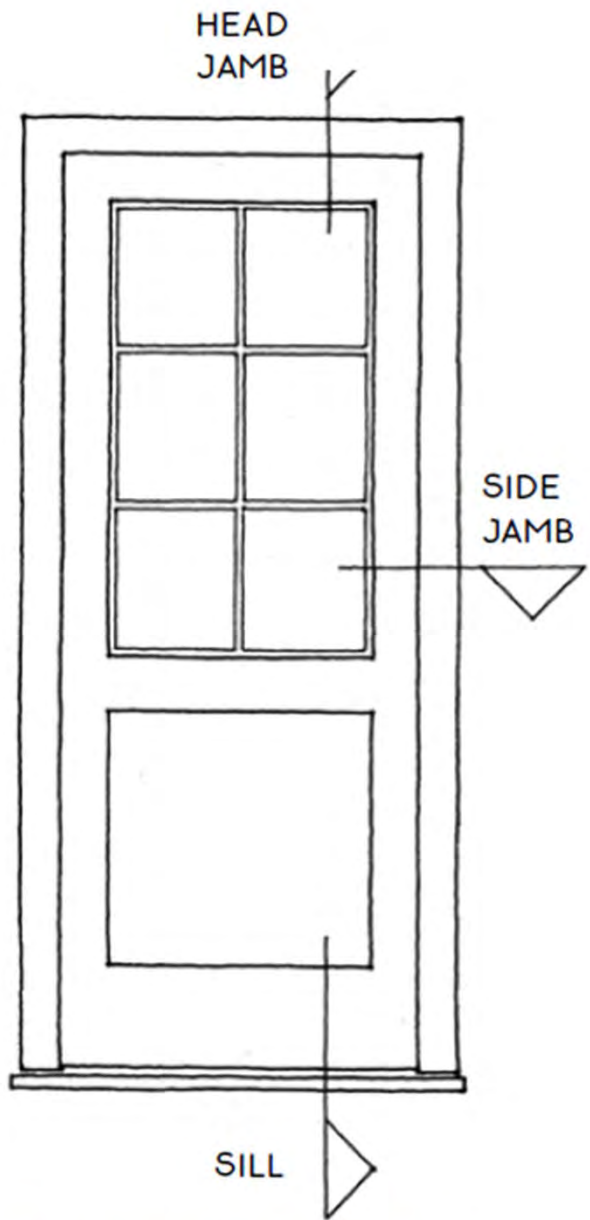
Traditional Exterior Door



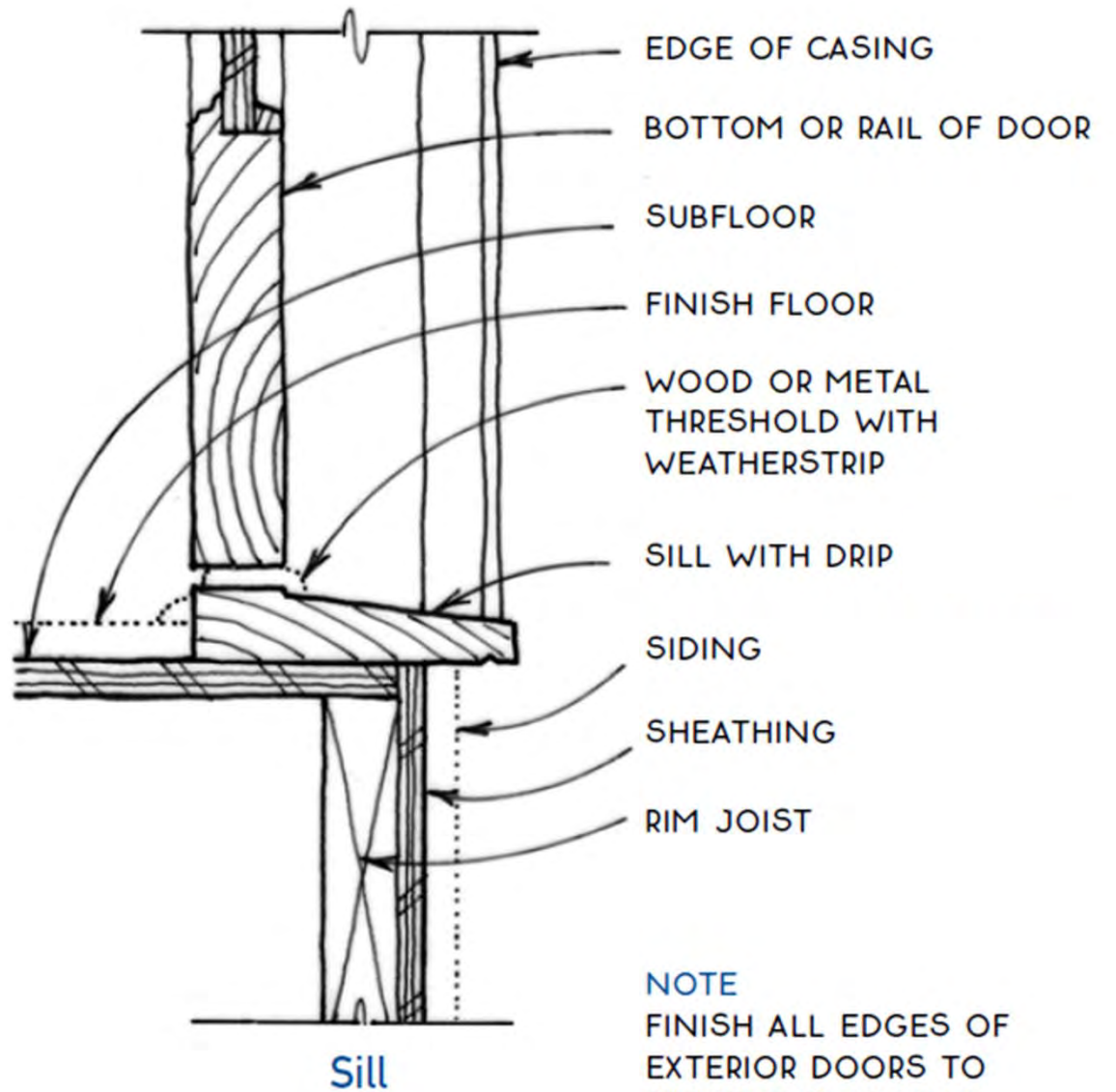
Head Jamb



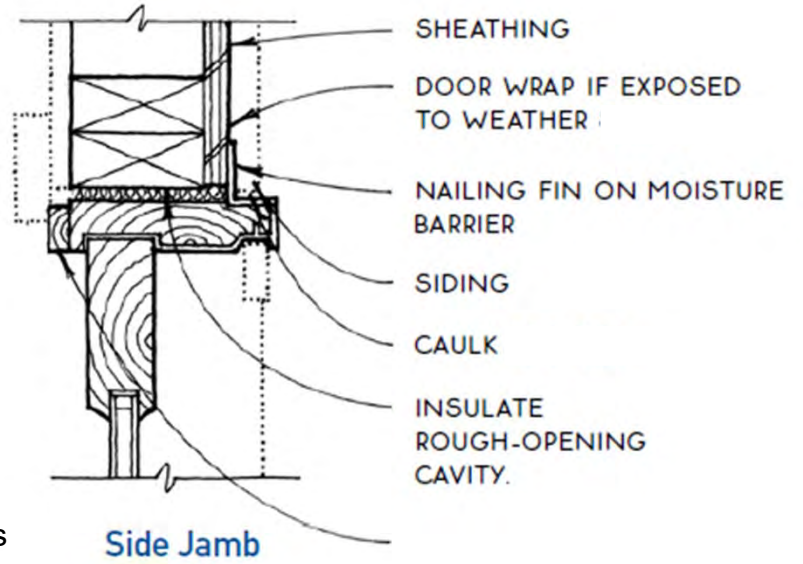
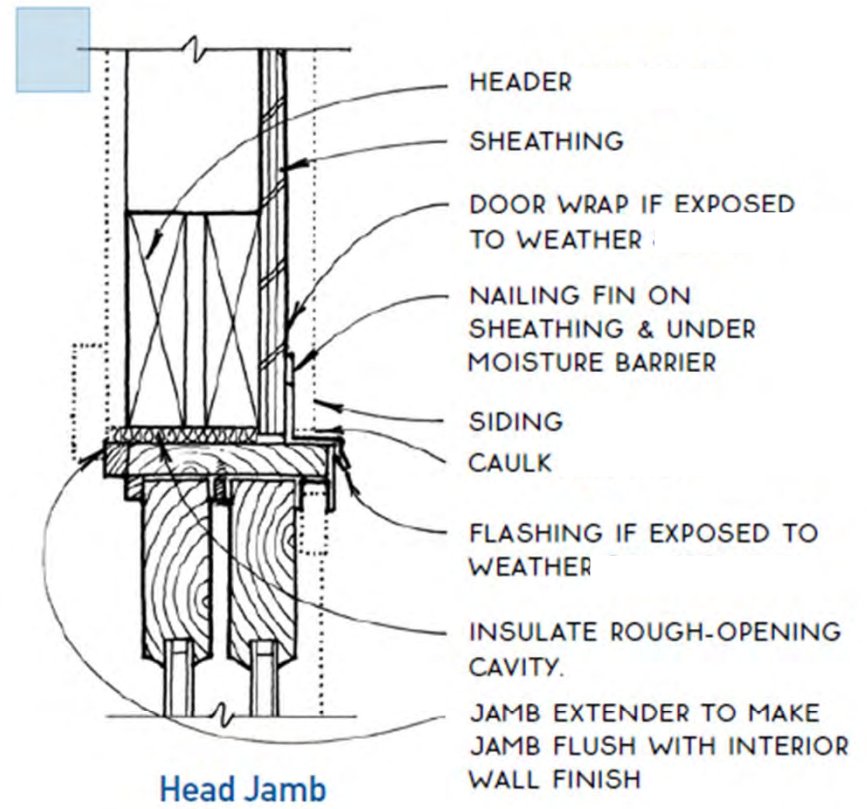
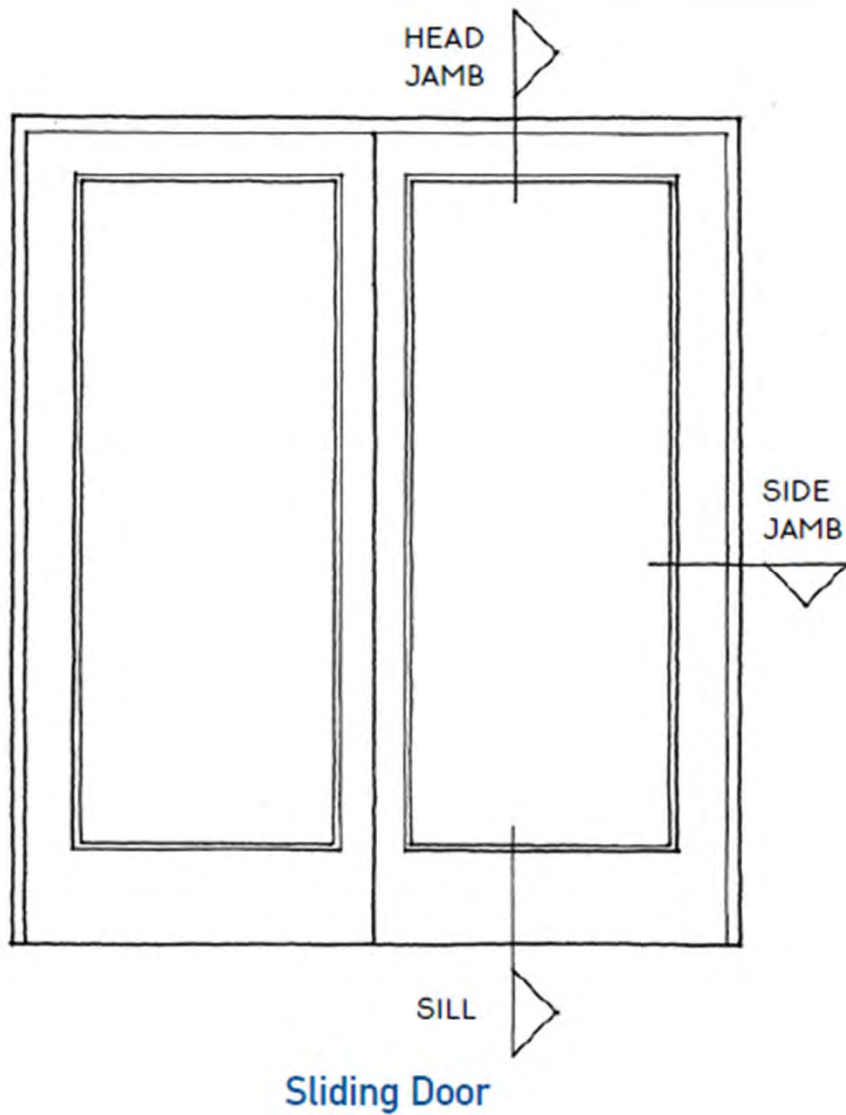
Side Jamb

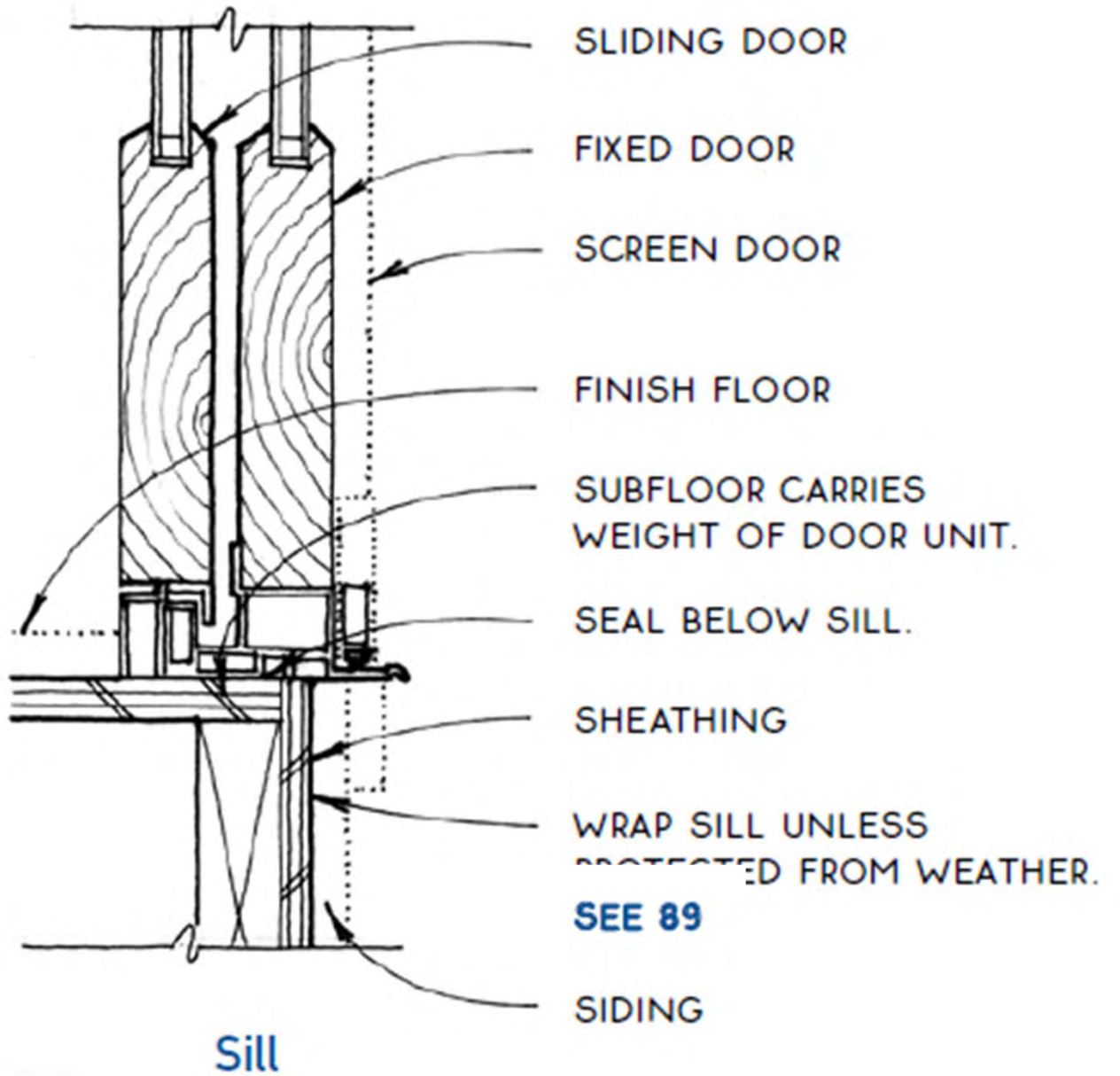
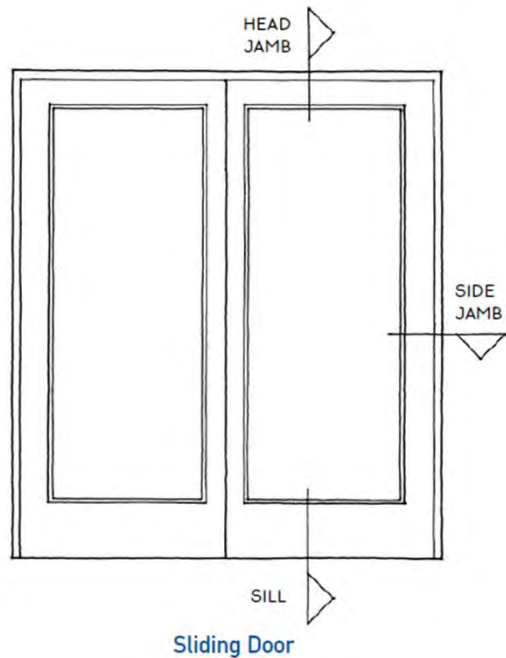


Traditional Exterior Door



NOTE
FINISH ALL EDGES OF EXTERIOR DOORS TO PREVENT SWELLING.

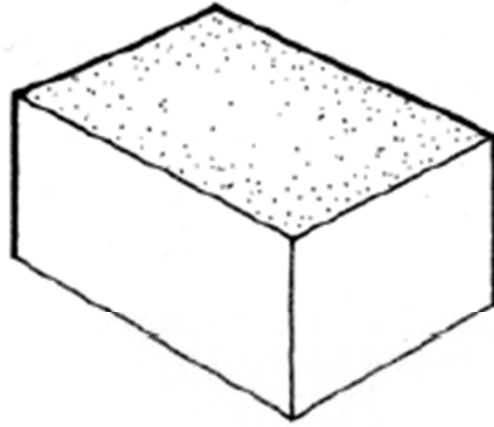




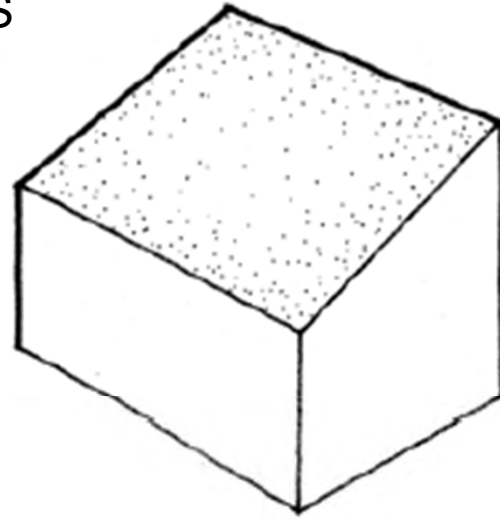
CityTech Solar Decathlon House 2015 photograph A Aptekar



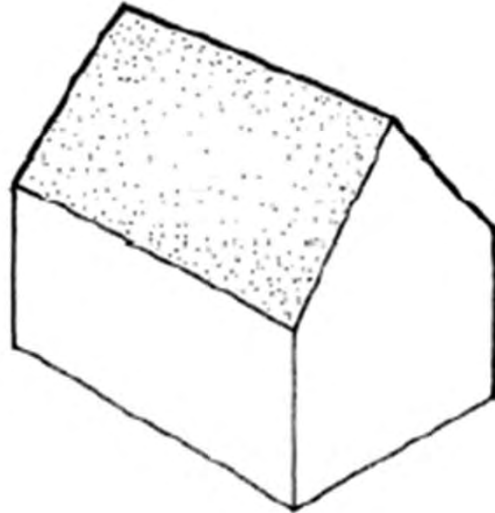
ROOFS



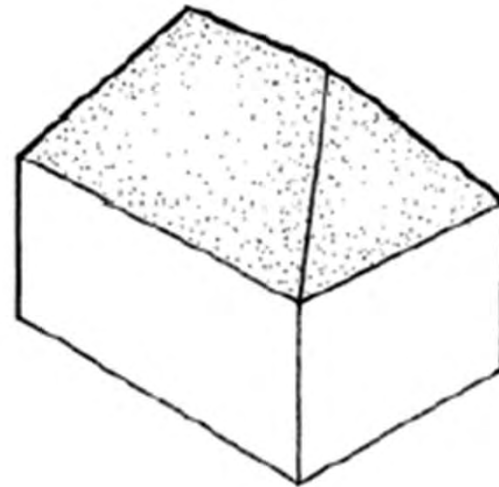
FLAT



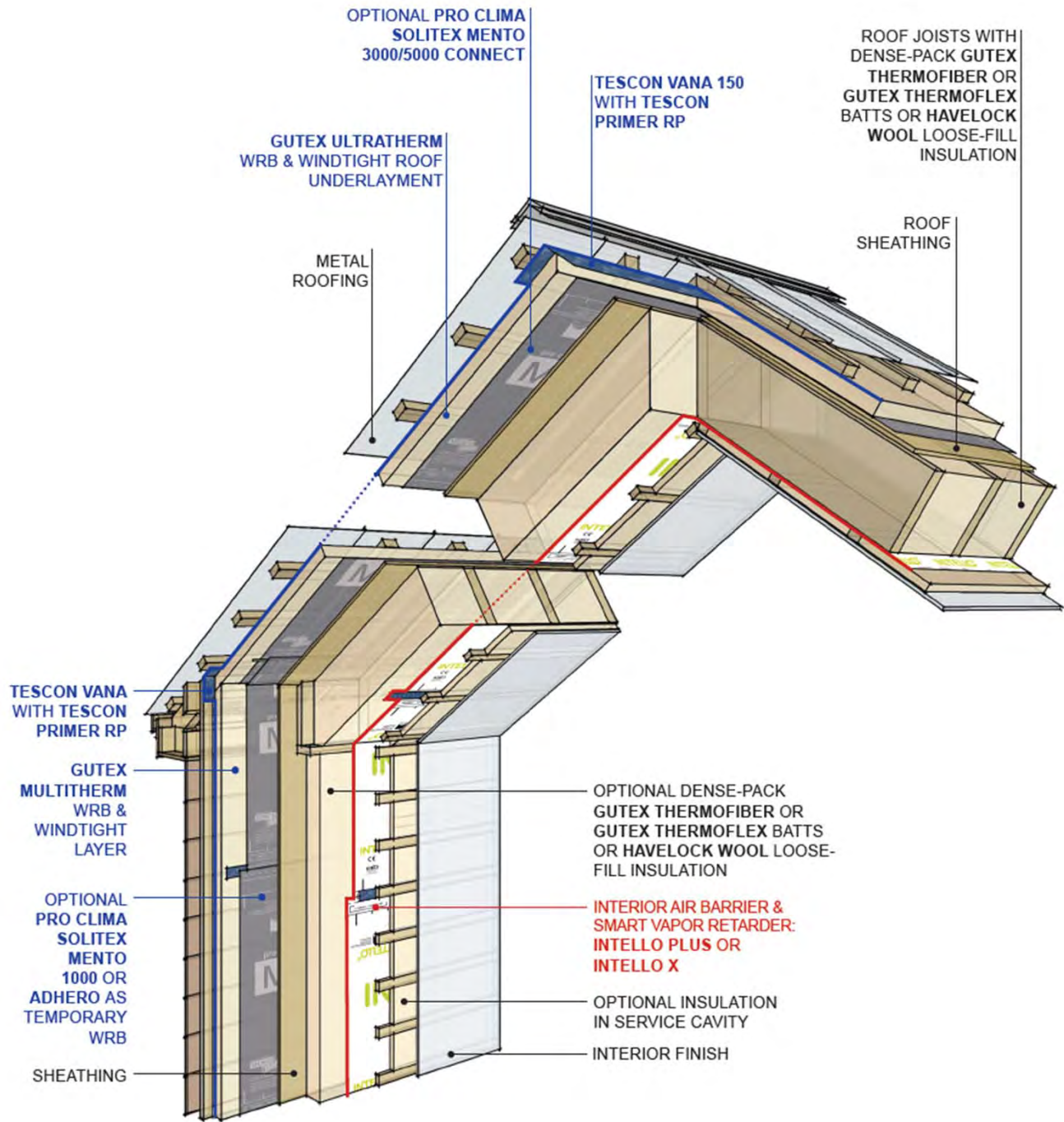
SHED

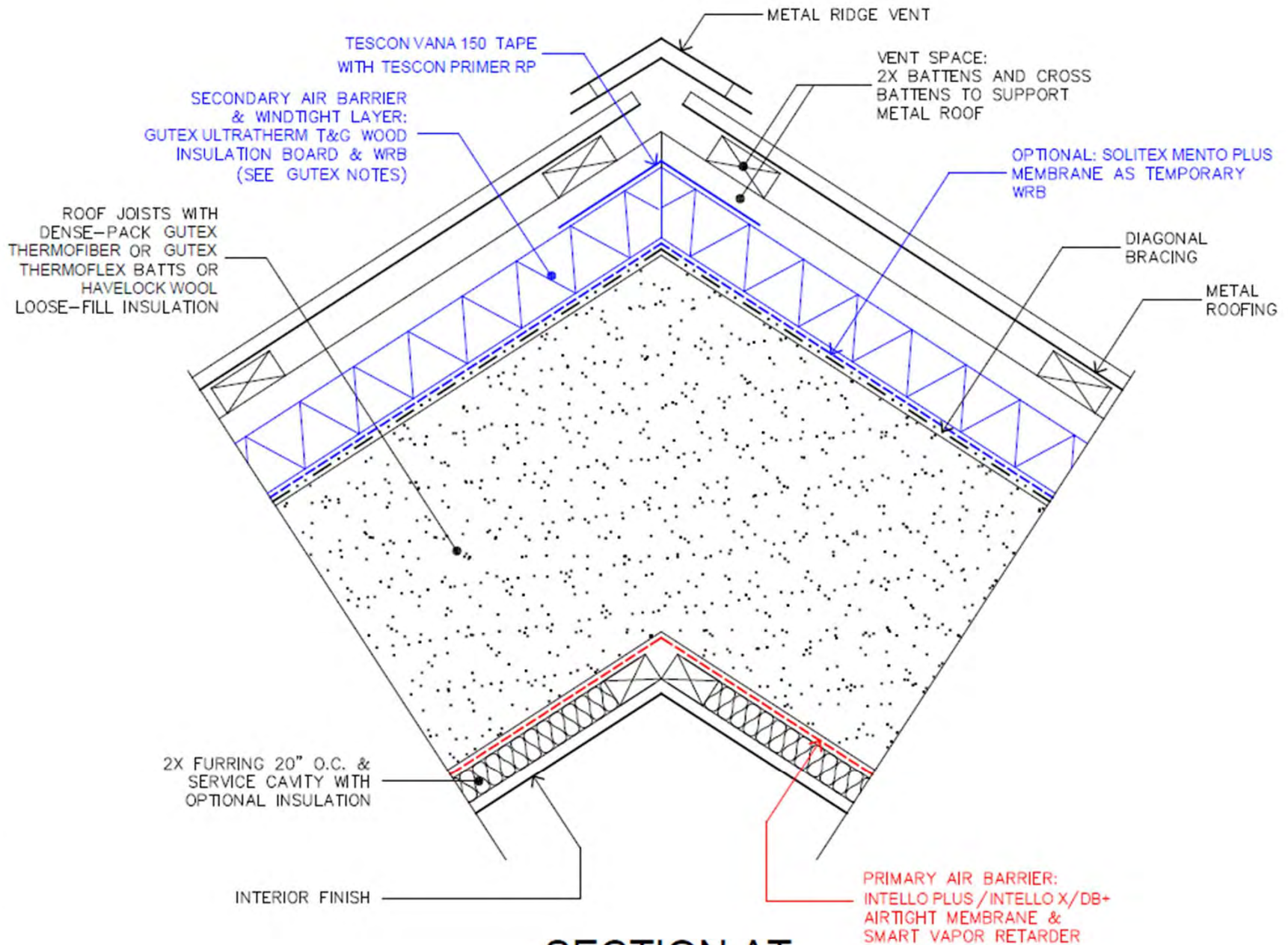


GABLE



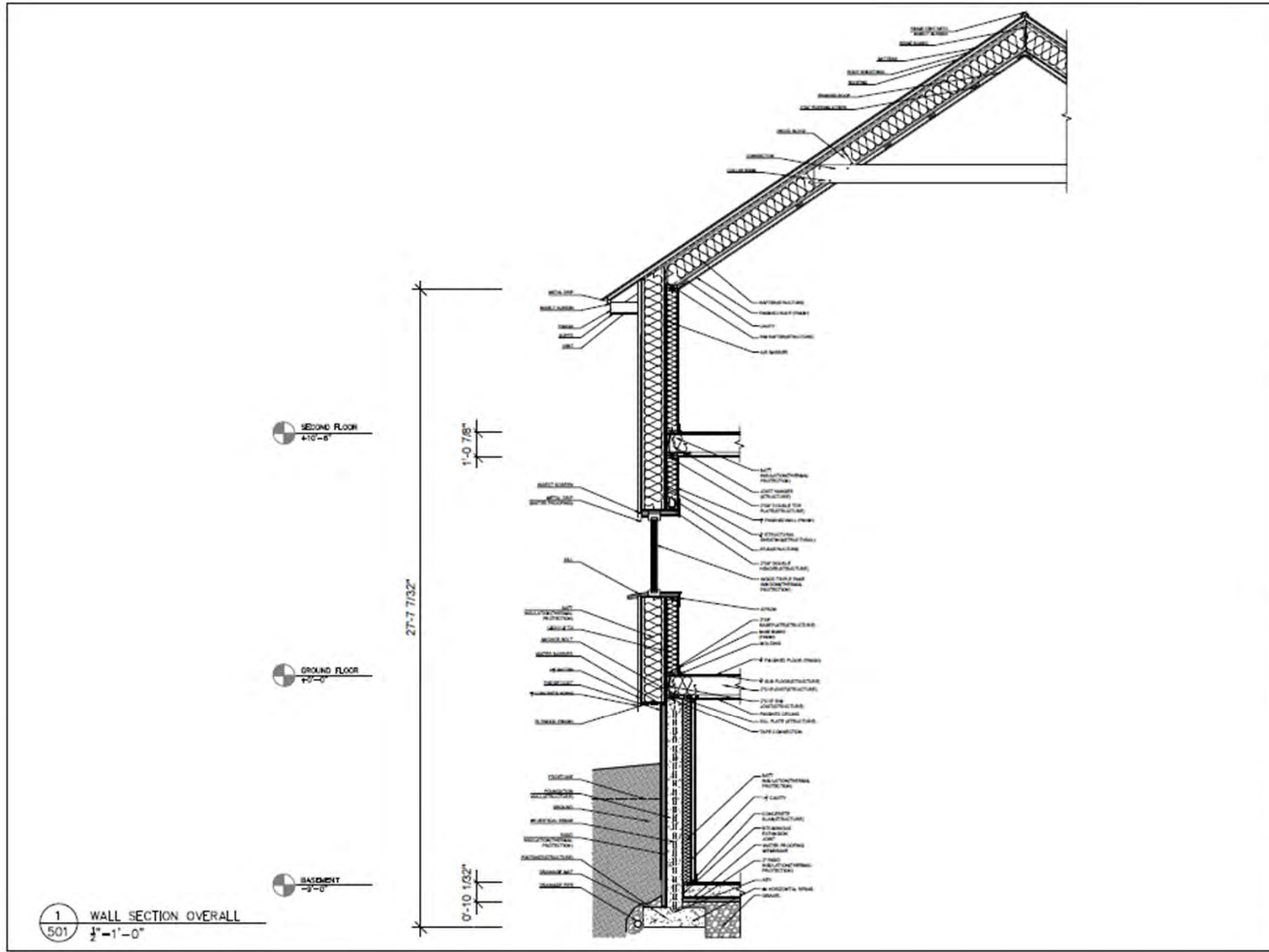
HIP





SECTION AT RIDGE





41 BUTTON ST
 NEW HAVEN, CT 06511

AMR, TASFIA
 Professor Name:
 Professor Alexander

NYC COLLEGE OF TECHNOLOGY
 Department of Architectural Technology
 125 Jay Street, Brooklyn, New York

STUD AND TB DIVISION:

DATE	MONTH	DD	YYYY

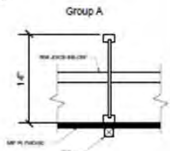
PROJECT
 41 BUTTON ST

DRG TITLE
 WALL SECTION OVERALL

SCALE: 1/2" = 1'-0"

SEAL & SIGNATURE	DATE	2019 05 07
	PROJECT NO.	YYYY_MM
DRAWN BY	TASFIA AMR	
	DRG NO.	A-501
DATE PLOTTED		2019-10-10 09:30:00
PAGE		9 OF 12

Student Name:
HADI, OLIVER
Brooklyn Office:
Department of Architectural Technology
155 Jay Street, Brooklyn New York
Course Name:
ARCH3331-0618
Professors Names:
Prof Aptekar
Prof Romfni

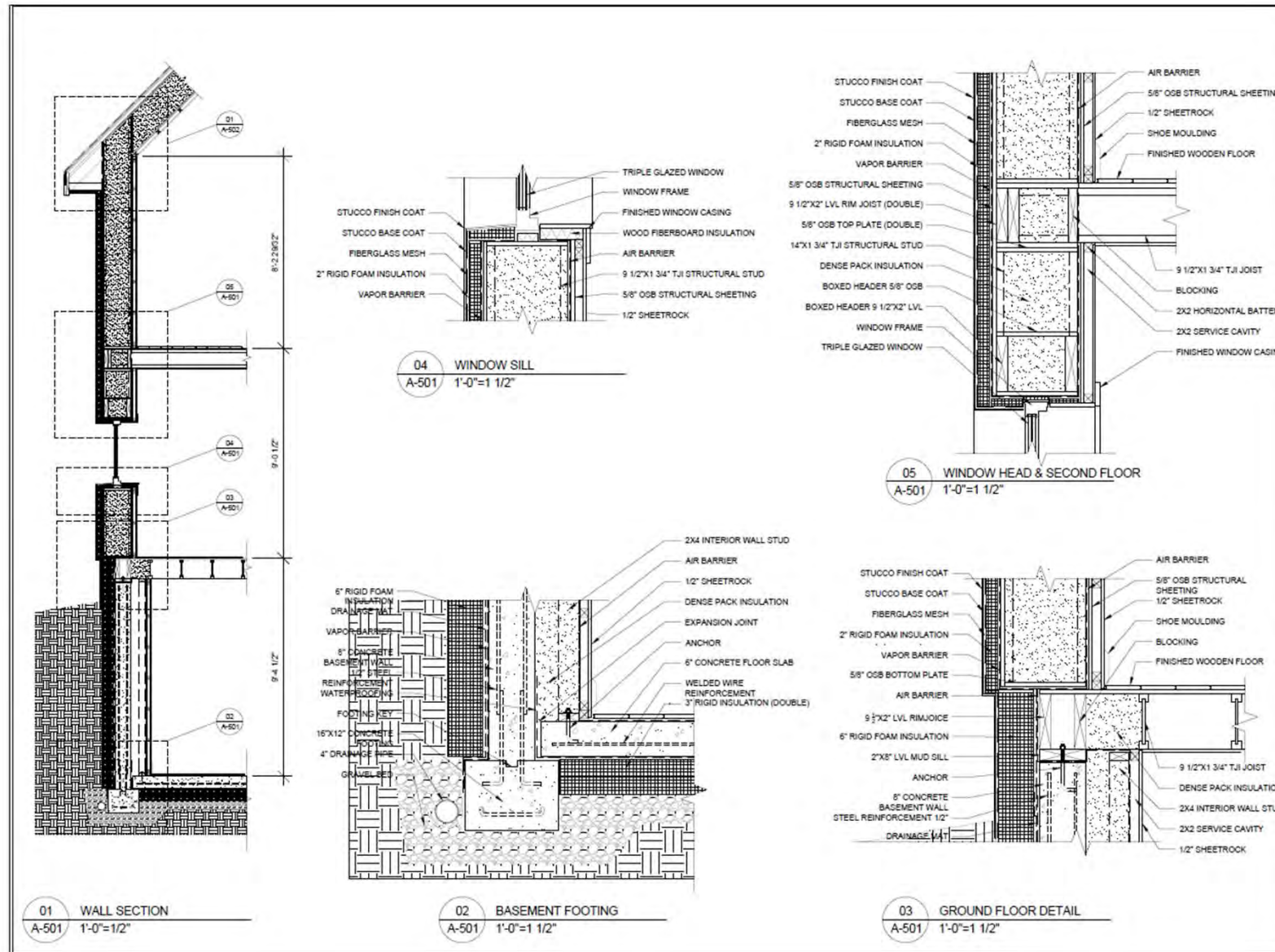


**PROJECT
HIGH PERFORMANCE
HOUSE**

PROJECT LOCATION
41 BUTTON ST
NEW HAVEN,
CT 06519

**DWG TITLE
SECTION DETAIL**

SEAL & SIGNATURE	DATE:	05/11/2019
	COURSE NO.:	231-0418
	DRAWING BY:	OLIVER HADI
	CHK BY:	PROF APTEKAR PROF ROMFNI
	DWG NO.:	A-501
	SCALE:	1'-0"=1 1/2"
		15



For next class:

- 1) Wall Sections (Printed for pinup)
- 2) Key command list



Lindsay Duddy. "This Moss-Covered, Octagonal Micro-Cabin Combines Luxury and Rustic Aesthetic" 12 Oct 2018. ArchDaily. Accessed 12 Oct 2018. <<https://www.archdaily.com/903776/this-moss-covered-octagonal-micro-cabin-combines-luxury-and-rustic-aesthetic/>> ISSN 0719-8884