

Mixed Use Building for King Tide Custom Homes

Physical Address  
10 Carroll Court  
Bluffton, South Carolina 29910

Property Owner  
King Tide Custom Homes, LLC

Applicable Codes  
2021 International Building Code with SC modifications  
2021 International Fire Code with SC modifications  
2021 International Mechanical Code with SC modifications  
2021 International Plumbing Code with SC modifications  
2020 National Electrical Code (NFPA 70) with SC modifications  
2009 International Energy Conservation Code

Project Description  
New construction for mixed use building with commercial below and one residential unit above. Building will have sprinklers.

Proposed Square Footage  
Heated Square Footage = 2738 square feet (excludes perimeter wall)  
Porches = 1024 square feet

First Story  
Heated = 1369 square feet  
Porches = 512 square feet  
Second Story  
Heated= 1369 square feet  
Porches = 512 square feet

Proposed Construction Makeup  
Wood-framed walls, floors and roof with concrete slab foundation.

Occupancy Classification  
First Floor  
(Section 304)  
Group B - Business  
Second Floor  
(Section 310.4)  
Group R-3 - Residential

Type of Construction  
Section 602.5  
Type VB

Allowable Building Height  
Table 504.3  
60 feet height.

Allowable Numbers of Stories  
Table 504.4  
3 Stories

Allowable Building Area  
Table 506.2  
27,000 sq. ft.

Fire Resistance Rating Requirements for Building Elements  
Table 601

Type VB construction requires zero hours for the structural frame, exterior and interior bearing walls, exterior and interior nonbearing walls, floor construction and roof construction.

Minimum Number of Exits or Access to Exits per Story  
Table 1006.3.3  
Two Exits Required  
Table 1006.2.1  
Allows one exit for each story

Maximum Exit Access Travel Distance  
Table 1017.2  
Group R = 250 feet  
Group B = 300 feet

Maximum Floor Area per Occupant  
Table 1004.5  
First Floor Business  
1369 square feet/150 gross = 9.13 =10 Occupants  
Second Floor Residential  
1369 square feet/200 gross = 6.85 =7 occupants

Required Separation of Occupancies  
Table 508.4  
1 Hour Separation is Required Between Group B and Group R

Horizontal Assemblies  
Section 711.2.4.1  
1-Hour Rated between Group B and Group R-3

Corridors - Fire Resistance  
1020.2 Exception 2  
Not Required for Group R  
1020.2 Exception 4

Manual Fire Alarm System  
[F] 907.2.2  
Group B Not Required

Smoke Alarms  
[F]907.2.11.2  
Group R-3 Required

Sprinklers  
Section [F]903.2.8  
Required

Portable Fire Extinguishers  
[F] 906.1  
Required for Group B  
Fire Marshal to determine number, location and type

Stove Hood  
Residential Type

Means of Egress Illumination  
Section 1008

Exit Signs  
Section 1013

Doors  
Section 1010

Stairs  
Section 1011  
Minimum Width = 36"  
Minimum Headroom = 80"  
Riser Height = 7" maximum, 4" minimum  
Tread Depth = 11" minimum

Handrails  
Section 1014

Guards  
Section 1015

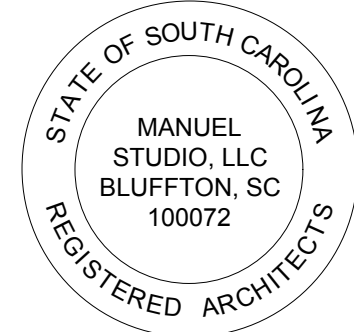
Interior Finishes  
Table 803.13  
See Table for Group B and R3 Sprinkled

Fire Safety  
Section 501.2  
Approved numbers or addresses shall be provided in a position that is visible and legible from the street or roadway. Letters and numbers shall be a minimum of 4 inches in height with a minimum 0.5-inch stroke.  
Fire alarm plans and fire sprinkler plans can come in deferred but shall be provided for review and approved prior to work starting on these systems. Stamped plans must be on site while work is being performed.  
The plans review approval from BJWSA shall be provided prior to the permit being issued. The RPZ shown on the site plan may not be installed underground.  
A Knox Box will be required for emergency access after business hours.  
FDC shall be on the street side of the building.

Accessibility  
Chapter 11  
First floor Group B must be accessible. See A-7 for ANSI Details. \*

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- A-4 WALL SECTIONS
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- A-6 SCHEDULES & DETAILS
- A-7 ANSI ILLUSTRATIONS



DATE :  
12/6/23

MANUEL STUDIO, LLC  
Ansley Hester Manuel, Architect  
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MIXED USE BUILDING FOR  
KINGTIDE CUSTOM HOMES  
10 CARROLL COURT  
BLUFFTON, SC 29910  
CODE ANALYSIS AND INDEX

SHEET  
C-1



## LEGEND

- CMS - CONCRETE MONUMENT SET  
□ CMF - CONCRETE MONUMENT FOUND  
○ IPS - IRON PIN SET  
○ IPF - IRON PIN FOUND

- # - INDICATES STREET ADDRESS  
TBM - TEMPORARY BENCH MARK  
BSL - BUILDING SETBACK LINE  
● - TELEPHONE PEDESTAL / COMMUNICATOR  
⊙ - SEWER LATERAL  
⊙ - SANITARY SEWER MANHOLE  
⊠ - ELECTRIC BOX  
⊕ - SPOT ELEVATION SHOTS  
- - - - - CONTOUR LINES

- ⚡ - XFMR - TRANSFORMER  
WL - WATER LATERAL  
WM - WATER METER  
ICV - IRRIGATION CONTROL VALVE  
⚡ - FIRE HYDRANT  
⊠ - GRATE INLET

- ⚡ - POWER POLE  
O.H.P.L. - OVER HEAD POWER LINE  
- - - - - GUY LINE  
⊙ - LIGHT POLE  
⊙ - STORM DRAIN MANHOLE  
⊙ - FIBEROPTICS MANHOLE

## TREE LEGEND

- WHOK - WHITE OAK  
LAOK - LAUREL OAK  
LOK - LIVE OAK  
WOK - WATER OAK  
ROK - RED OAK  
PCAN - PECAN  
MAG - MAGNOLIA  
HIC - HICKORY  
MPL - MAPLE  
PLM - PALMETTO  
CHY - CHERRY  
HLY - HOLLY  
CDR - CEDAR  
RDB - RED BUD  
SAS - SASSAFRAS  
DOG - DOGWOOD  
SB - SUGARBERRY  
P - PINE  
G - GUM  
B - BAY



PARCEL 77  
N/F  
PAWAN PROPERTY 5 LLC

PARCEL 78  
N/F  
ISAAC BRYANT & FRANCES EDWARD LAWYER

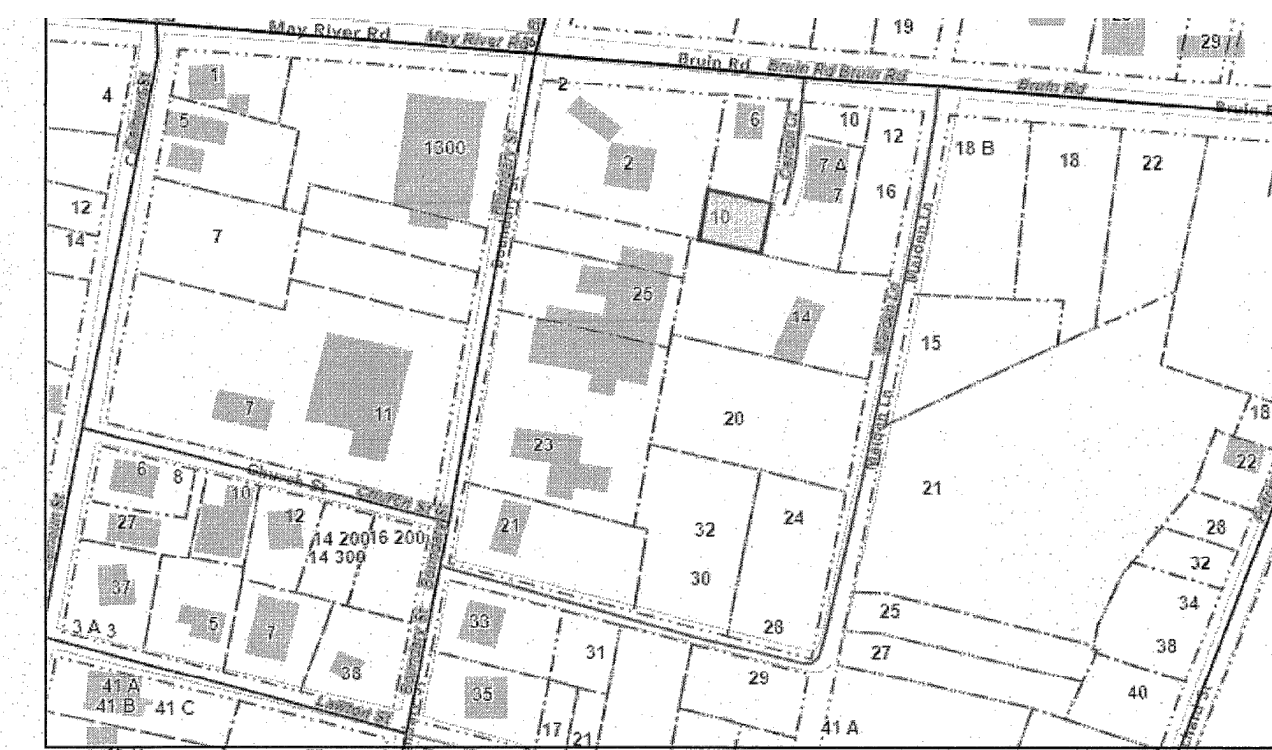
PARCEL 74  
N/F  
HEIRS OF WILLIS WRIGHT

PARCEL 258  
N/F  
6B BRUN ROAD LLC

PARCEL 372  
#10  
4,695 sq. ft.  
0.11 acres

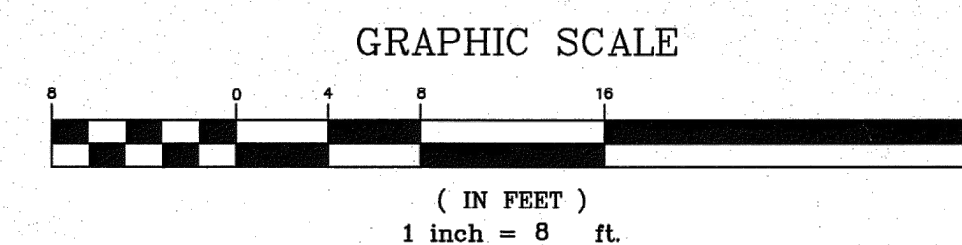
PROPOSED  
2 STORY BUILDING

PARCEL 76  
N/F  
ETBC LLC



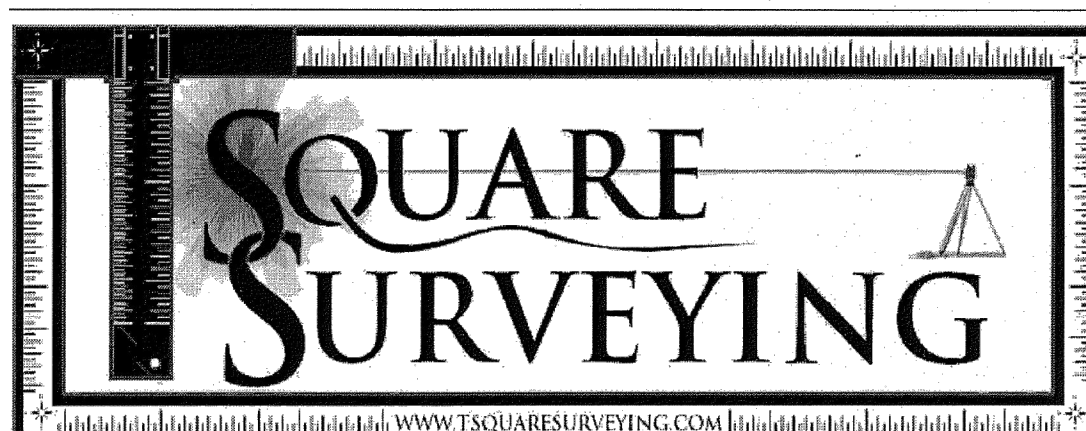
LOCATION MAP NOT TO SCALE

LINE TABLE		
LINE	LENGTH	BEARING
L1	6.32	N76°17'15"W



A  
C2

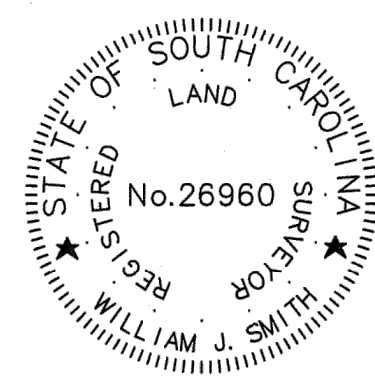
PROPOSED SITE PLAN  
SCALE: 1"=8'-0"

**T SQUARE SURVEYING**

PROFESSIONAL LAND SURVEYORS

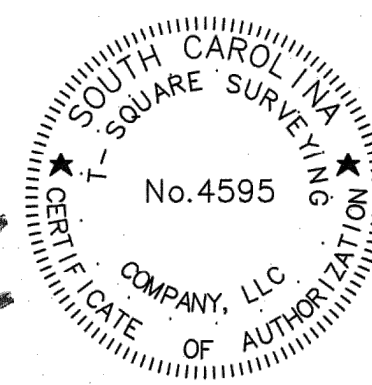
P.O. Drawer 330  
139 Burnt Church Road  
Bluffton, S.C. 29910  
tsquare@earthlink.net  
Phone 843-757-2650 Fax 843-757-5758

JOB No. 23-291T



I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION & BELIEF, THE SURVEY SHOWN HEREON WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN.

WILLIAM J. SMITH, PLS # 26960



THE ABOVE PLAT PREPARED BY ME AT THE REQUEST OF

**KING TIDE CUSTOM HOMES**

A TREE & TOPOGRAPHIC SURVEY OF PARCEL 372 CARROLL COURT,  
DISTRICT 610, TAX MAP 39A,  
TOWN OF BLUFFTON, BEAUFORT COUNTY, SOUTH CAROLINA.

DIST. 610, MAP 39A, PARCEL 372

**Notes:**

1. According To FEMA Flood Insurance Rate Map # 4501300426G This Lot Appears To Lie In A Federal Flood Plain Zone X, Minimum Required Elevation N/A Ft. NAVD88.
  2. This Property May Be Subject To Easements, Protective Covenants And Other Facts That May Be Revealed By A Complete Title Search.
  3. This Survey Was Performed Without The Benefit Of A Wetland Delineation.
  4. All Building Setback Requirements Should Be Verified With The Proper Authorities Prior To Design And Construction.
- Reference Plat 152  
PLAT BOOK 147 AT PAGE 1

DRAWN BY: B.M.S.

APPROVED BY: W.J.S.

PARTY CHIEF: W.J.S.

DATE: JULY 12, 2023

MIXED USE BUILDING FOR  
**KINGTIDE CUSTOM HOMES**

10 CARROLL COURT  
BLUFFTON, SC 29910

PROPOSED SITE PLAN

SHEET

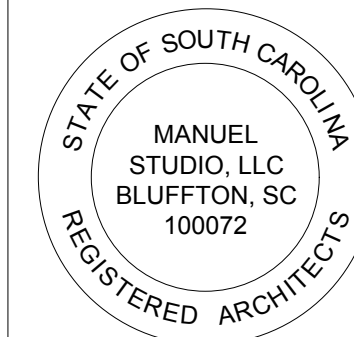
**C2**

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DATE :  
12/6/23



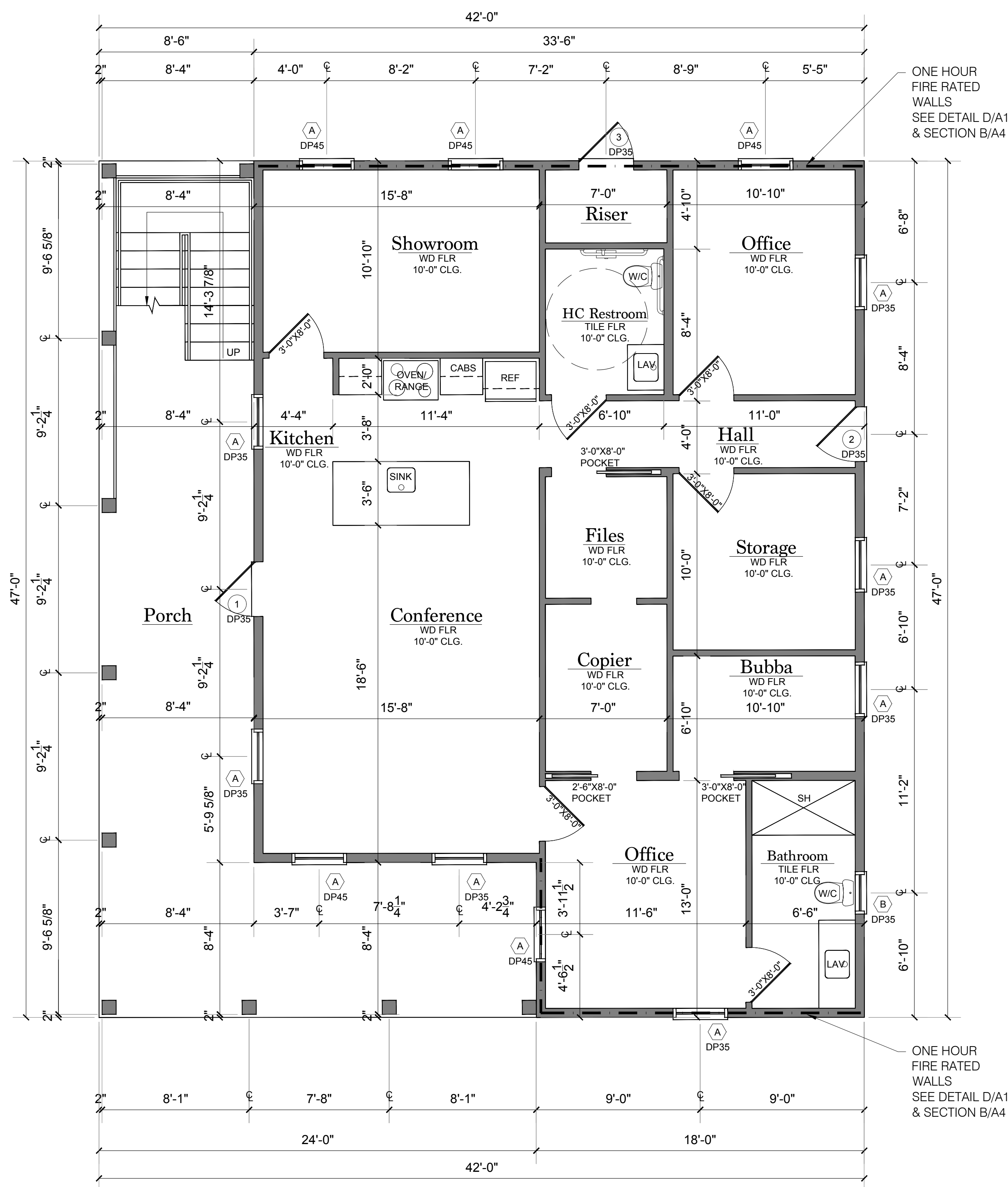


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12/6/23MANUEL STUDIO, LLC  
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FIRST &amp; SECOND FLOOR PLANS

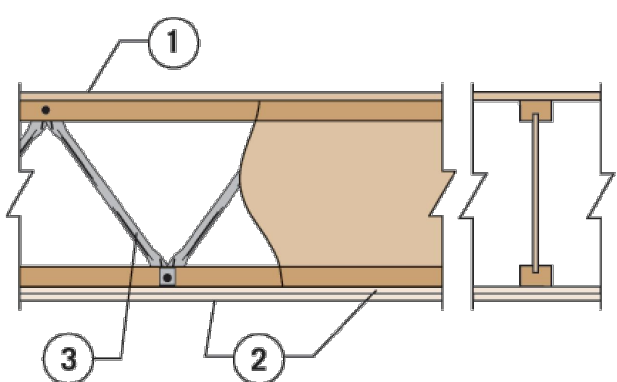
SHEET

A1



A FIRST FLOOR PLAN

A1 SCALE: 1/4"=1'-0"

RedBuilt Assembly B (1 Hour Fire Rated Assembly)  
The following fire resistant designs are listed in accordance with ASTM-E119 and CANULC-S101C ONE HOUR FIRE RATED  
FLOOR/CEILING DETAIL

A1 SCALE: N.T.S.

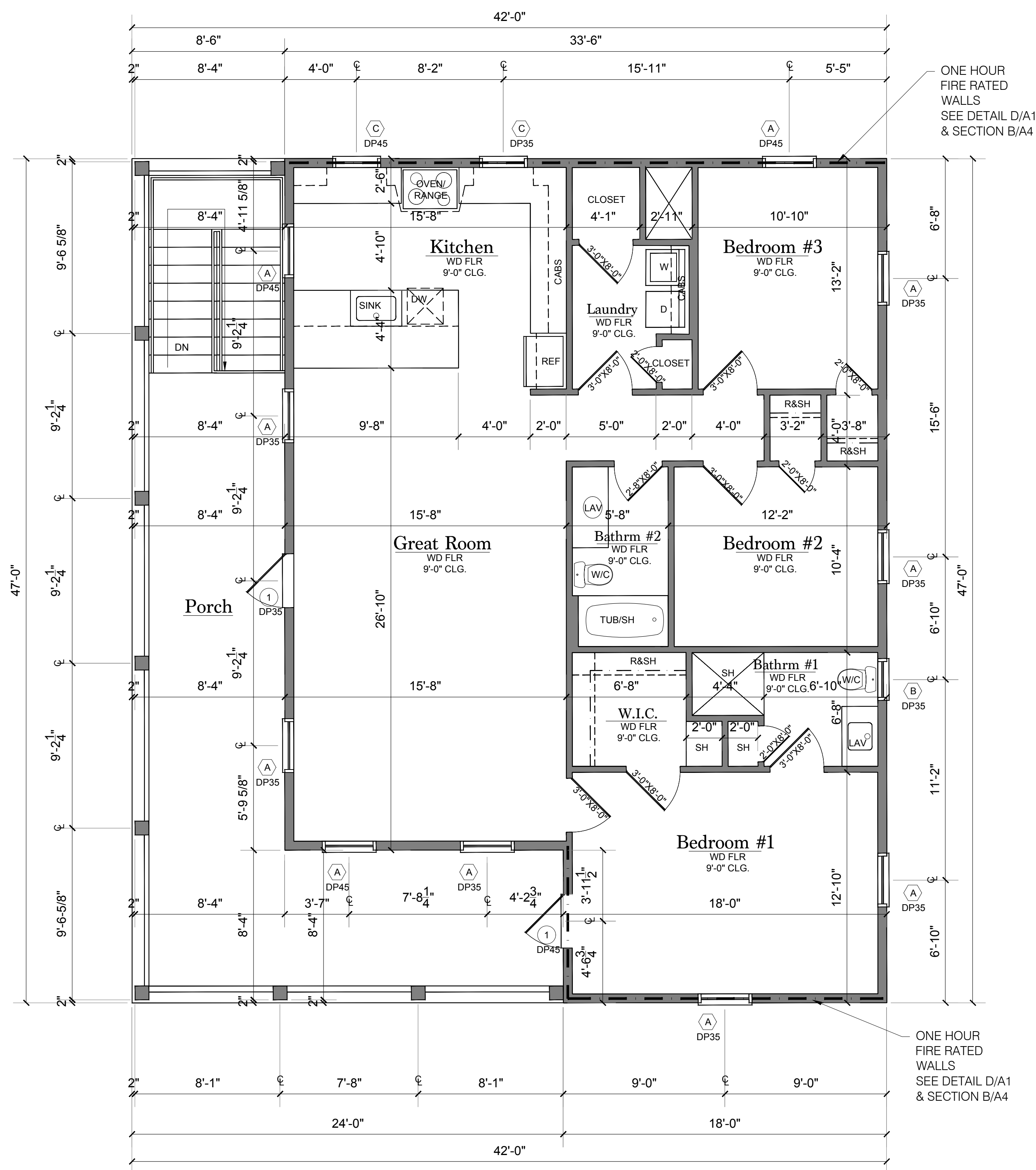
1. Finished Flooring: The flooring must consist of a single layer of 48/24 span-rated, tongue-and-groove, wood-based, structural-use (Exposure 1). When used as a roof-ceiling assembly, the decking is permitted to be any wood deck recognized in the code. All butt joints of the sheathing must be located over framing members.
2. Ceiling: The ceiling membrane must consist of two layers of 1/2-inch-thick (12.7 mm) Type X gypsum board complying with ASTM C 36, attached to the Red-I joist or OpenWeb bottom flange / chord. The first layer of gypsum board must be installed perpendicular to the Red-I joists or OpenWeb trusses and attached using 1"-5/8-inch-long (41 mm), Type S screws spaced 12 inches (305 mm) on center. The second layer must be installed with the joints staggered from the first layer. The second layer must be fastened to the Red-I joists or OpenWeb trusses with 2-inch-long (51 mm), Type S screws spaced 12 inches (305 mm) on center in the field and 8 inches (203 mm) on center at the butt joints.
3. Structural Members: Red-I joists or OpenWeb trusses must be installed in accordance with ICC ESR-2994/1774, with a maximum spacing of 24 inches (610 mm) on center for floor-ceiling assemblies. When used in roof-ceiling assemblies, the joists or trusses are permitted to be spaced a maximum of 48 inches (1219 mm) on center.

Optional:

Resilient Channels (RC-1): Are permitted to be used as part of the ceiling attachment system, provided they are spaced 16 inches (406 mm) on center [24 inches (610 mm) on center if the joists or trusses are spaced 16 inches (406 mm) on center] and fastened perpendicular to the Red-I joists or OpenWeb trusses using 1-inch-long (25.4 mm), Type S screws. When resilient channels are used, the first layer of the ceiling membrane must be installed perpendicular to the channels and attached to the resilient channels using 1-inch-long (25.4 mm), Type S screws spaced 12 inches (305 mm) on center. The second layer must be installed with the joints staggered from the first layer and attached using 1-5/8-inch-long (41 mm), Type S screws. The screw spacing for the second layer of gypsum board must be a maximum of 12 inches (305 mm) on center in the field and 8 inches (203 mm) on center at the butt joints.

Type G screws, 1-1/2 inches (38 mm) long, must be spaced 8 inches (203 mm) on center and 6 inches (152 mm) from each side of the transverse joints of the second layer. The second layer must be finished with joint tape and compound.

Insulation: Minimum 3-1/2-inch-thick (89 mm) glass fiber insulation rated R-30 or less may be installed in the joist or truss plenum when resilient channels are used. The insulation must be placed above the resilient channels between the joist or truss bottom flanges / chords.



B SECOND FLOOR PLAN

A1 SCALE: 1/4"=1'-0"

## EXTERIOR WOOD-FRAMED WALL



Hourly Rating: 1-hour

STC Rating: 30-34 STC

Fire Test Reference: UL U305, ULC W301<sup>1</sup> and 3, cUL U305

Sound Test Reference: OR 64-8

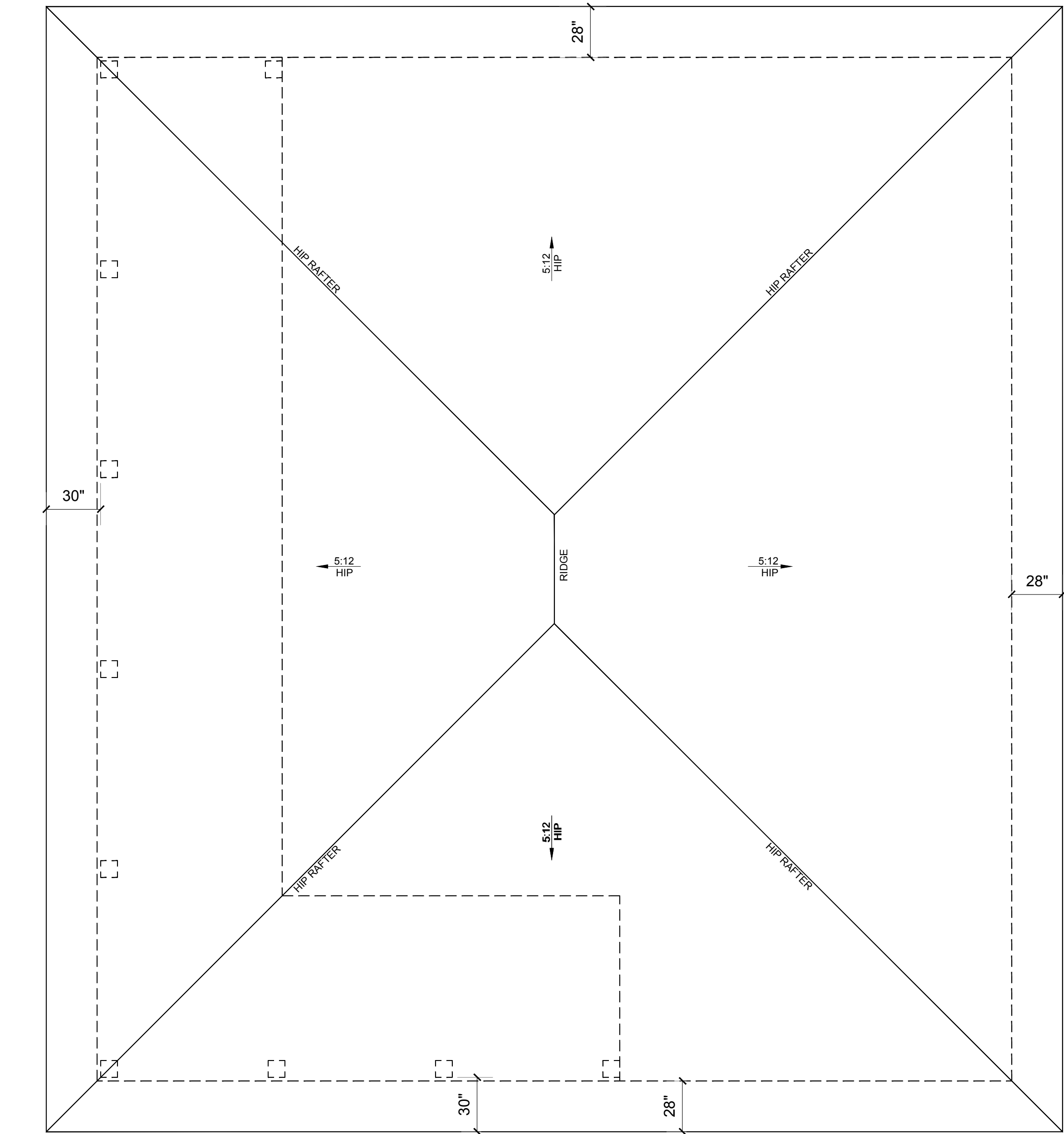
D ONE HOUR FIRE RATED  
EXTERIOR WALL DETAIL

A1 SCALE: N.T.S.

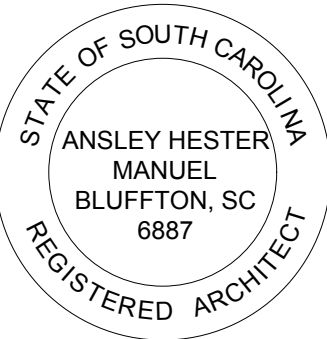
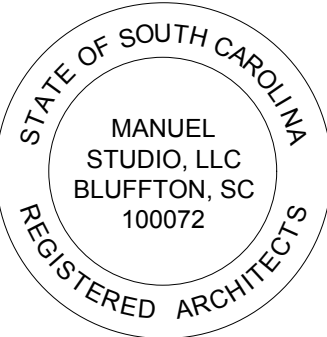
Exterior Side: 5/8" (15.9 mm) DensGlass® Fireguard® Sheathing or ToughRock® Fireguard X® Sheathing applied vertically or horizontally to 2"x 4" wood studs 16" (406 mm) o.c. with 1-3/4" (45 mm) galvanized roofing nails 7" (178 mm) o.c. Exterior surface covered with weather exposed cladding or finish system. Interior Side: One layer 5/8" (15.9 mm) ToughRock® Fireguard X™ Products or 5/8" (15.9 mm) DensArmor Plus® Fireguard® gypsum board applied vertically or horizontally to studs with 1-7/8" (48 mm) 6d coated 7" (178 mm) o.c. Stagger joints each side. ULC W301 allows vertical application only.

Approved for Assembly:

DensArmor Plus® Fireguard C® Products, DensArmor Plus® Fireguard® Products, DensElement™ Barrier Sheathing, DensGlass® Fireguard® Sheathing, DensShield® Fireguard® Tile Backer, ToughRock® Fireguard C® Products, ToughRock® Fireguard X™ Mold-Guard™ Products, ToughRock® Fireguard X™ Products, ToughRock® Lite-Weight Fire-Rated Products



A ROOF PLAN  
A2 SCALE: 1/4"=1'-0"



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ROOF PLAN

SHEET

A2





**A** EAST (CARROLL COURT) ELEVATION  
**A3** SCALE: 1/4"=1'-0"



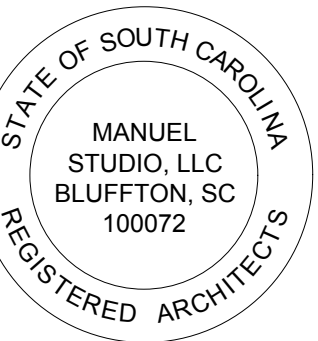
**B** NORTH ELEVATION  
**A3** SCALE: 1/4"=1'-0"



**C** WEST ELEVATION  
**A3** SCALE: 1/4"=1'-0"



**D** SOUTH ELEVATION  
**A3** SCALE: 1/4"=1'-0"



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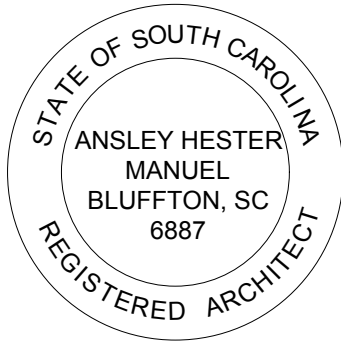
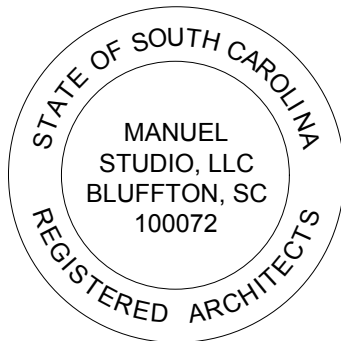
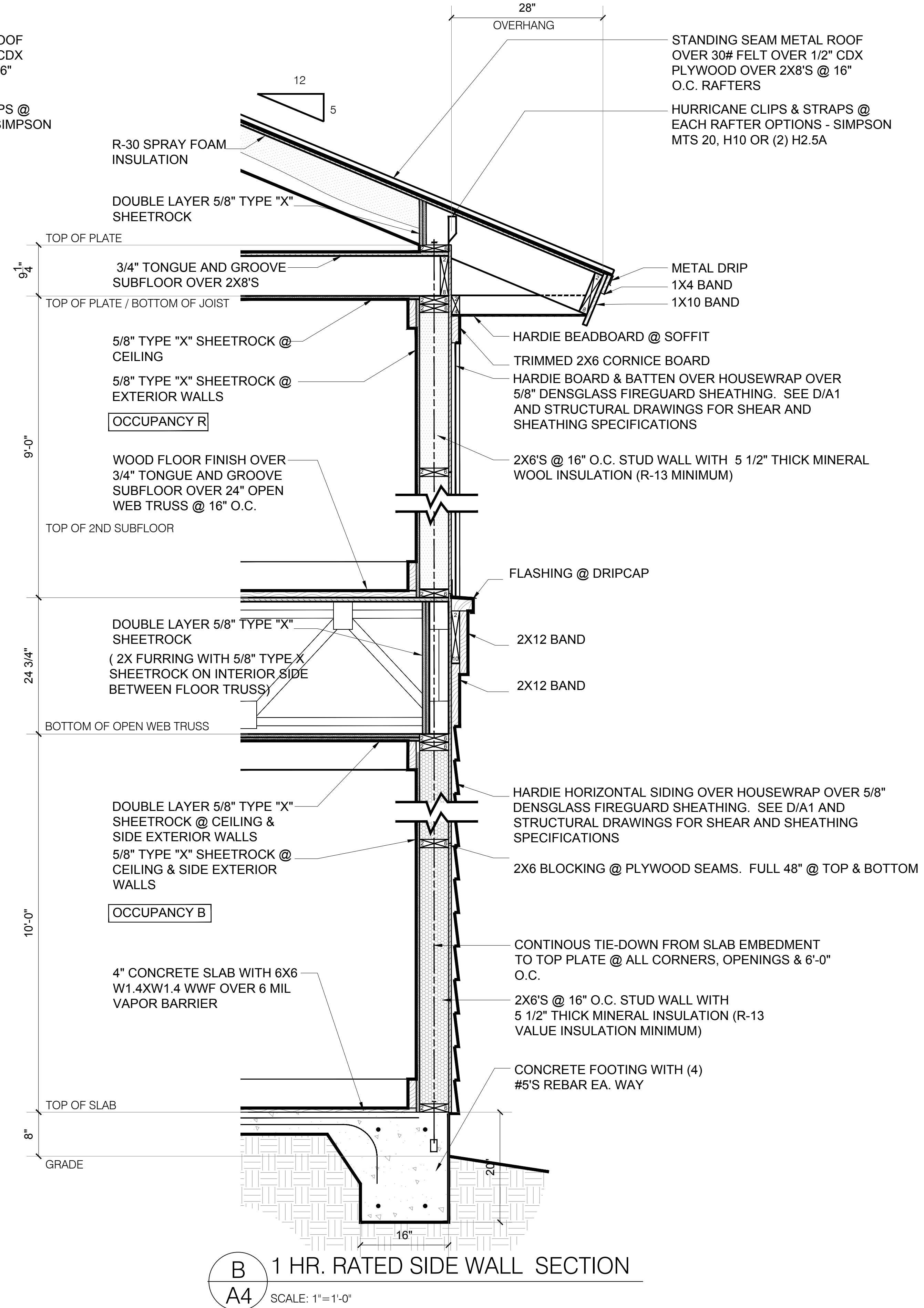
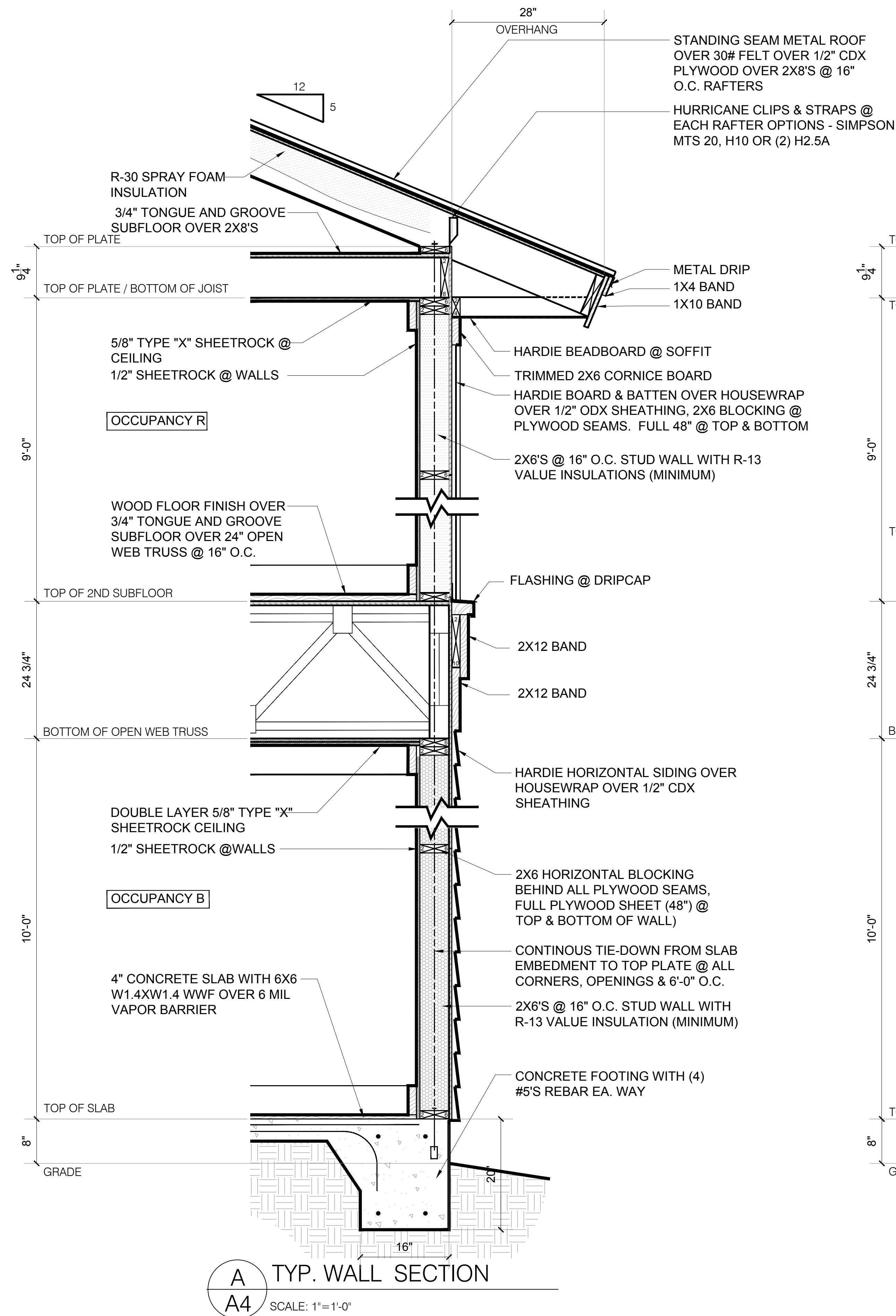
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MIXED USE BUILDING FOR  
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10 CARROLL COURT  
BLUFFTON, SC 29910  
**ELEVATIONS**

SHEET

**A3**





DATE :  
12/6/23

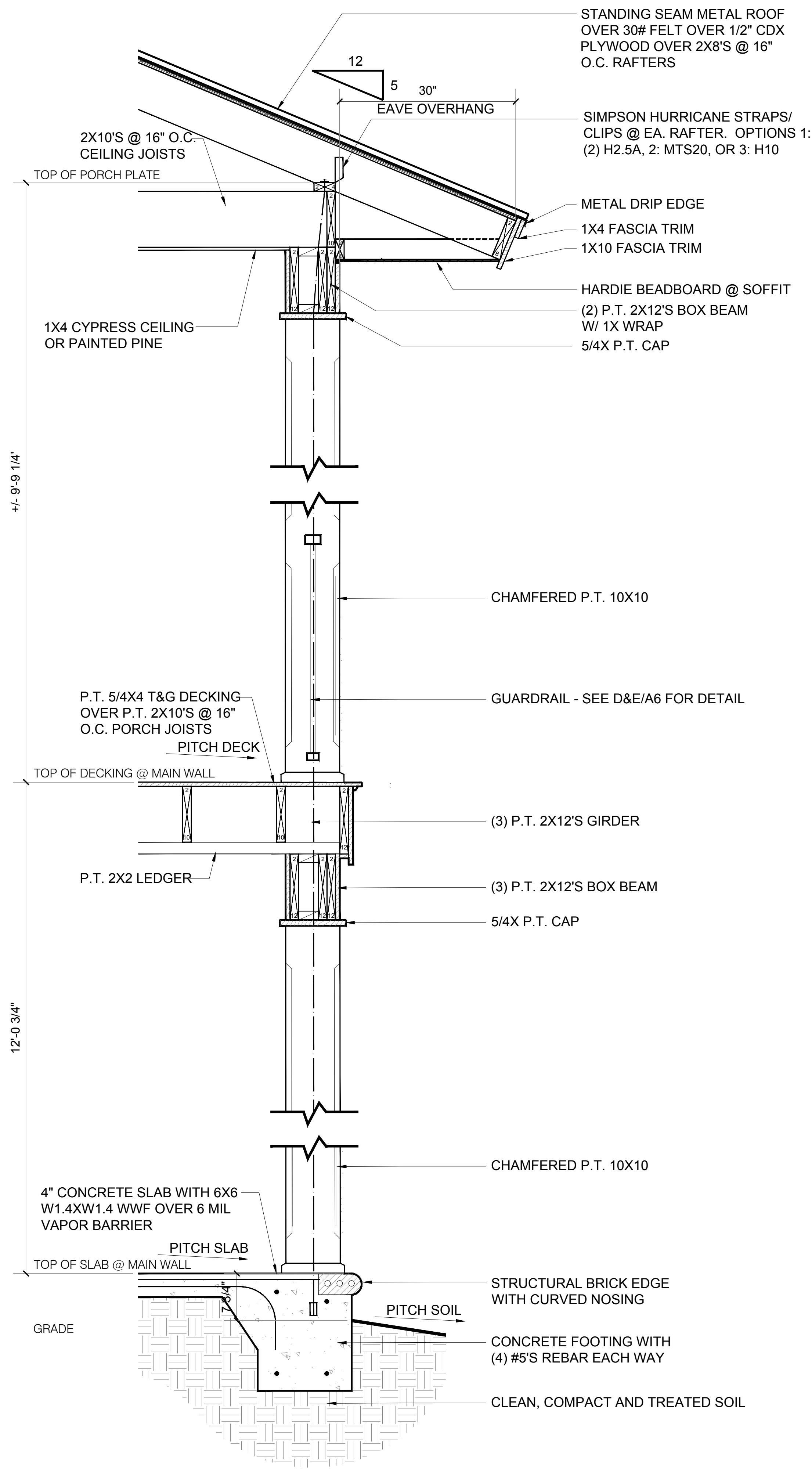
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MIXED USE BUILDING FOR  
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**WALL SECTIONS**

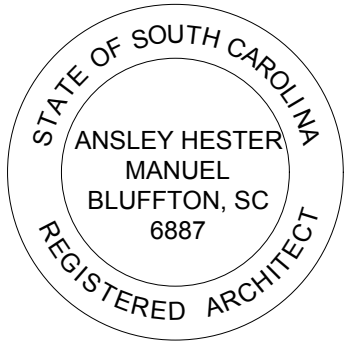
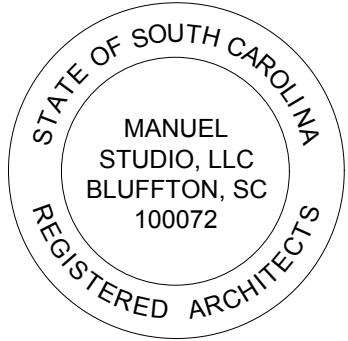
SHEET

**A4**





A  
A5 PORCH SECTION  
SCALE: 1"=1'-0"



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**PORCH SECTION**

SHEET  
**A5**



ROOM SCHEDULE

ROOM	FLOOR	WALL	CEILING	BASE	CASE	CROWN
PORCH						
CONFERENCE						
KITCHEN						
SHOWROOM						
H/C RESTROOM						
OFFICE						
HALL						
STORAGE						
FILES						
COPIER						
OFFICE						
BUBBA						
BATHROOM						
SECOND FLOOR PORCH						
GREAT ROOM						
KITCHEN						
LAUNDRY						
BEDROOM #1						
BATHROOM #1						
W.I.C.						
BEDROOM #2						
BATHROOM #3						
BEDROOM #3						

DOOR SCHEDULE

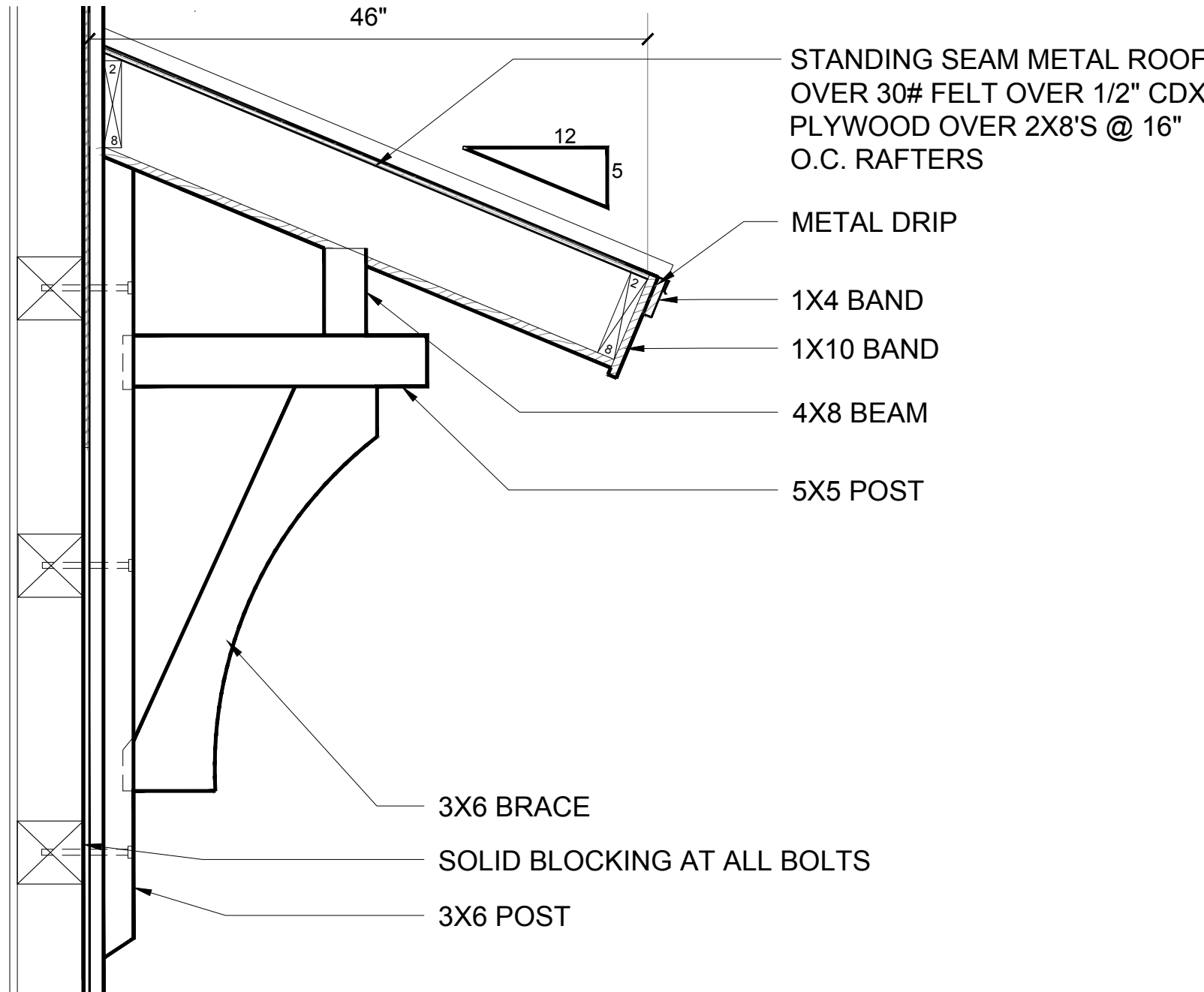
MARK	WIDTH & HEIGHT	TYPE	LITES	REMARKS
1	3'-0"X8'-0"	HALF GLASS, OUTSWING	4	
2	3'-0"X8'-0"	HALF GLASS, INSWING	4	
3	3'-0"X8'-0"	4-PANEL, OUTSWING	N/A	

ALL EXTERIOR DOORS TO BE ALUMINUM CLAD (EXTERIOR), WOOD (INTERIOR) UNLESS OTHERWISE NOTED.  
7/8" MUNTIN WIDTHS SIMULATED DIVIDED LITES.  
ALL GLASS TO BE IMPACT RESISTANT.  
DP RATINGS ARE 35 IF MORE THAN 4' FROM CORNER & 45 IF WITHIN 4' FROM CORNER

WINDOW SCHEDULE

MARK	WIDTH & HEIGHT	TYPE	LITES	REMARKS
A	3'-0" X 5'-4"	CASEMENT	4	
B	2'-4" X 3'-8"	CASEMENT	4	
C	2'-8" X 4'-8"	CASEMENT	4	

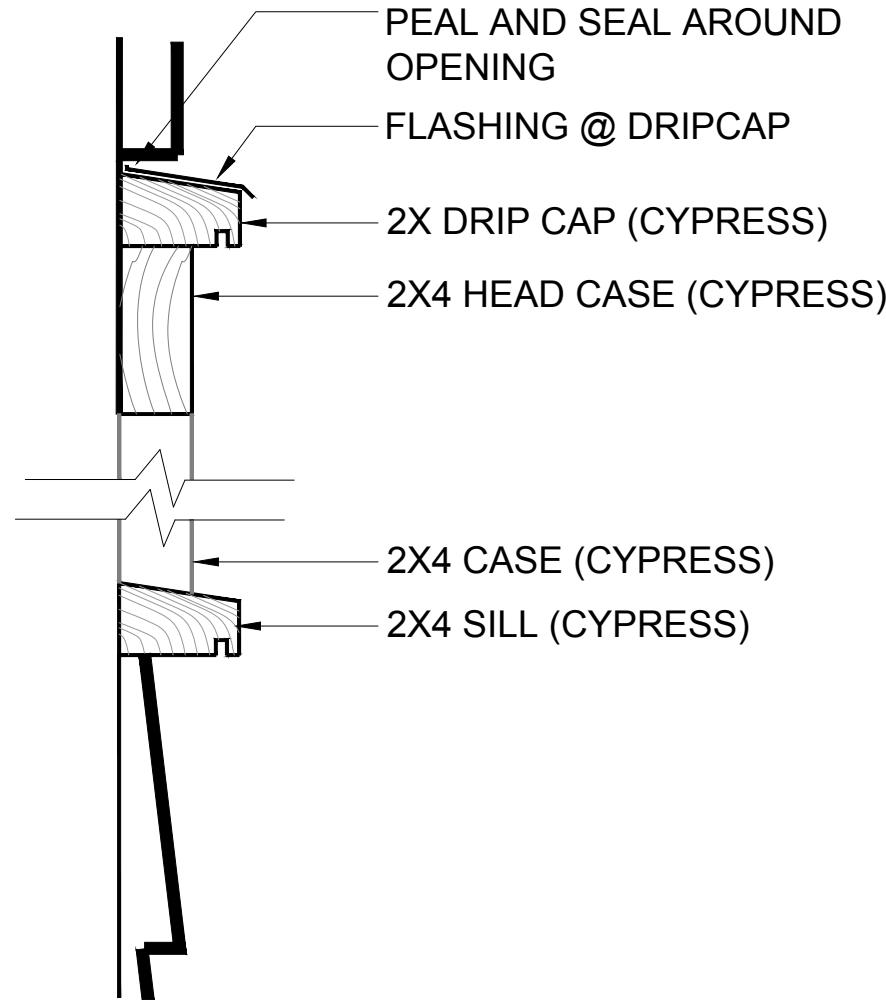
ALL WINDOWS ARE WOOD INTERIOR AND CLAD EXTERIOR.  
7/8" MUNTIN WIDTHS SIMULATED DIVIDED LITES.  
ALL GLASS TO BE IMPACT RESISTANT.  
DP RATINGS ARE 35 IF MORE THAN 4' FROM CORNER & 45 IF WITHIN 4' FROM CORNER



A  
A6

ROOF OVERHANG @ DOOR DETAIL

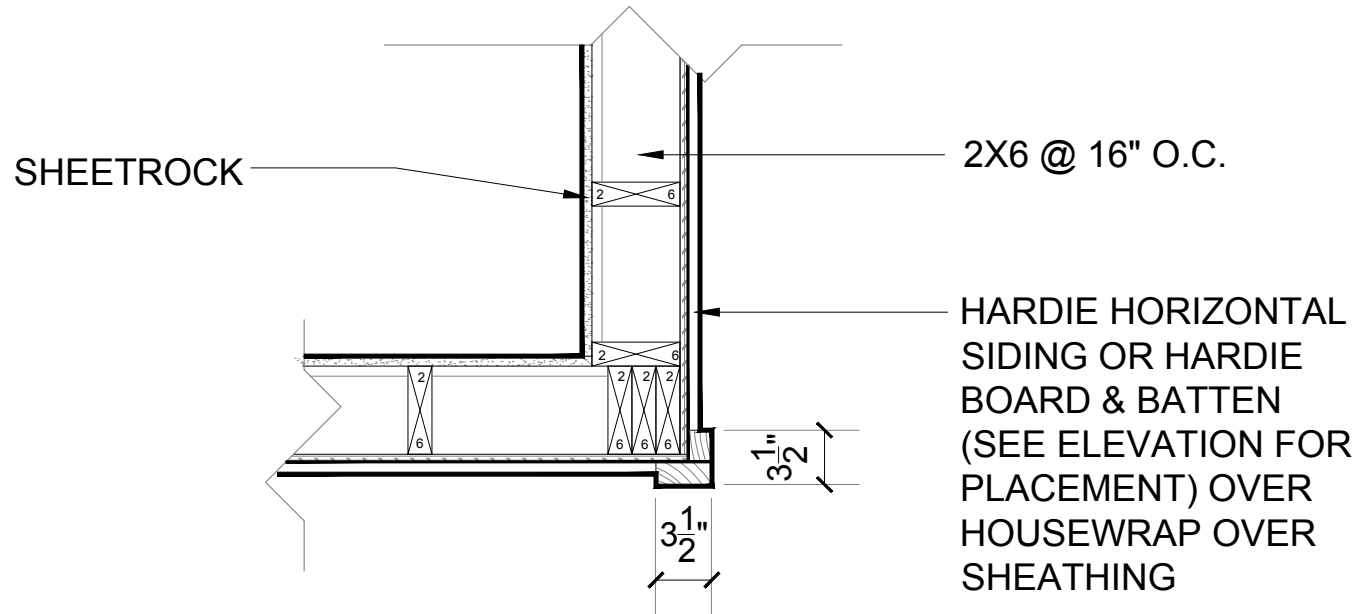
SCALE: 1"=1'-0"



B  
A6

WINDOW TRIM DETAIL

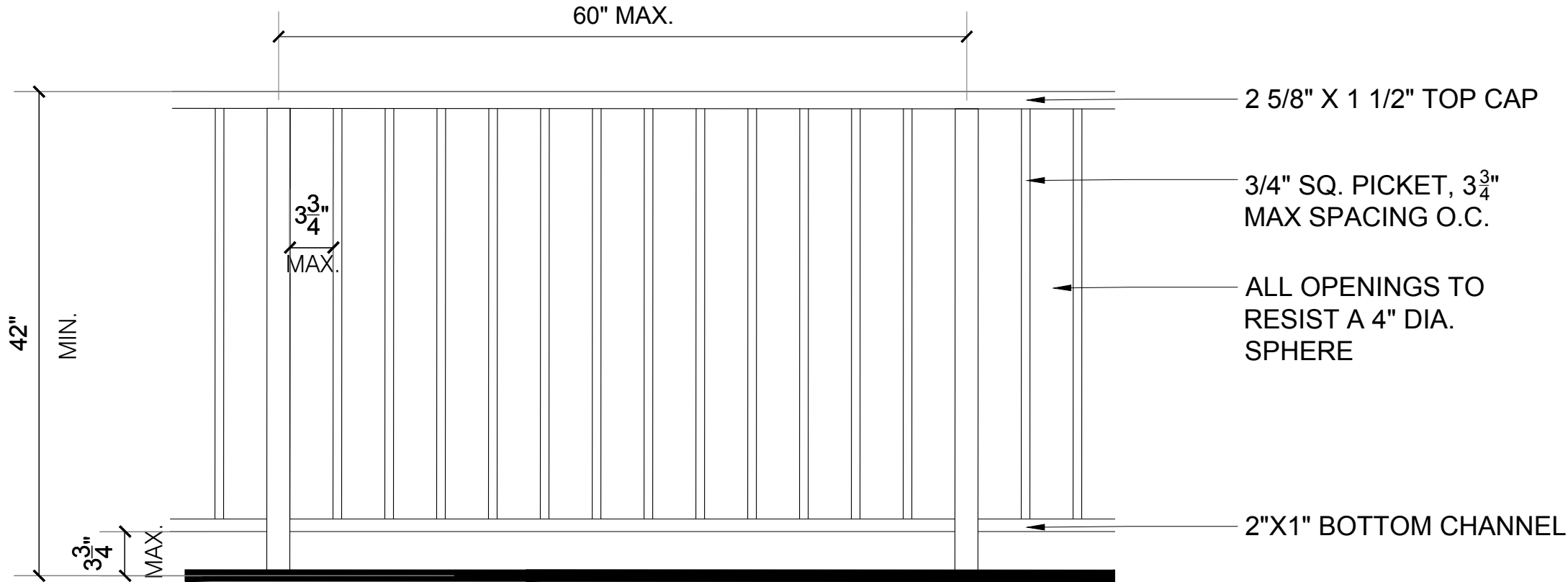
SCALE: 3"=1'-0"



C  
A6

TYPICAL CORNER PLAN DETAIL

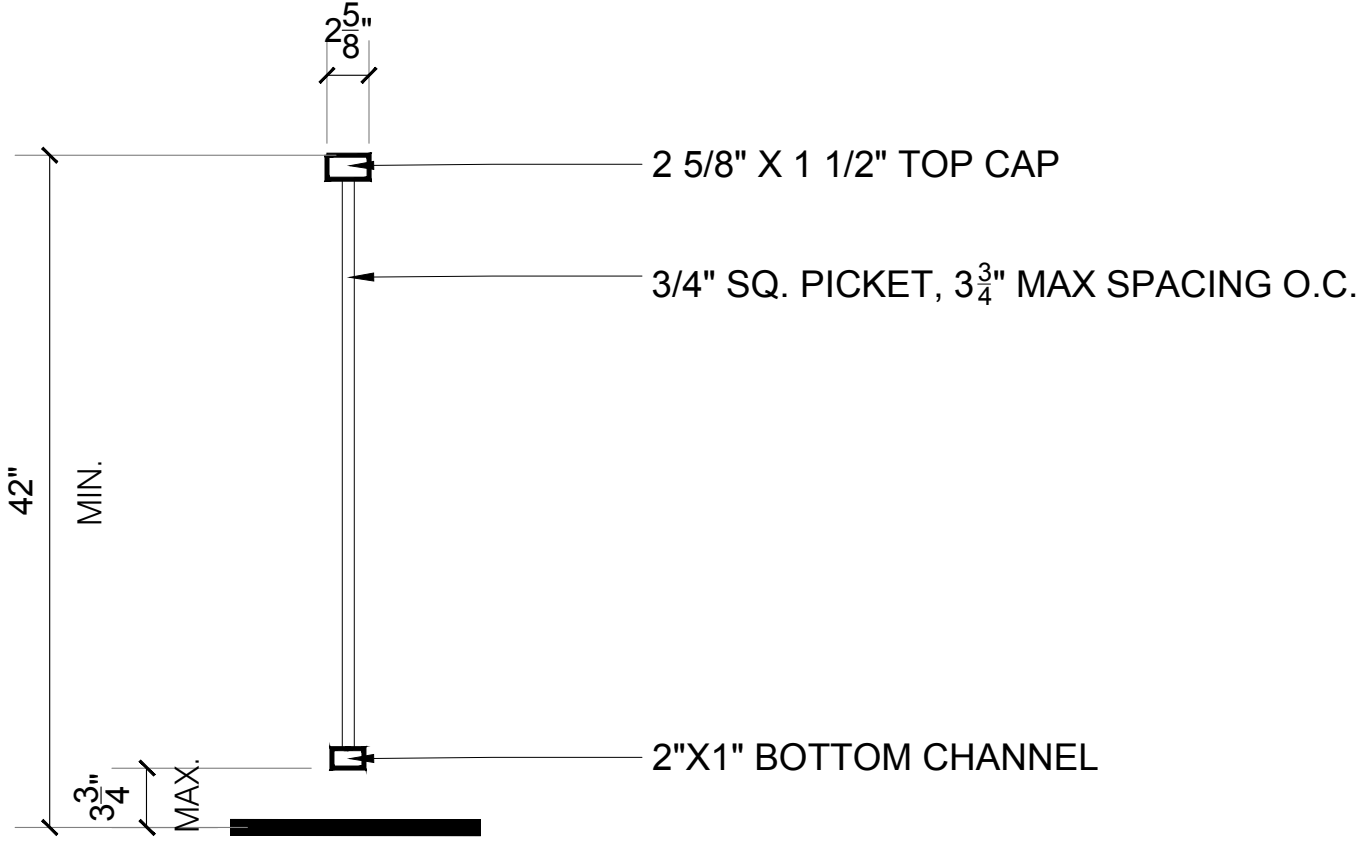
SCALE: 1"=1'-0"



D  
A6

POWDER COATED ALUMINUM GUARD RAIL ELEVATION

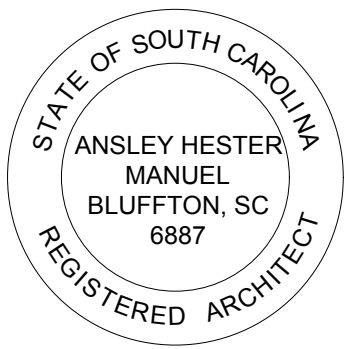
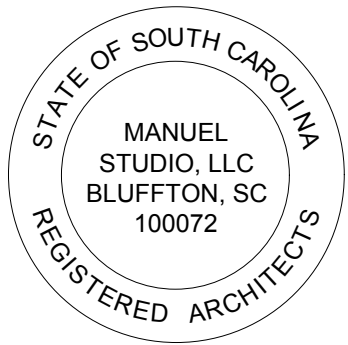
SCALE: 1"=1'-0"



E  
A6

POWDER COATED ALUMINUM GUARD RAIL DETAIL

SCALE: 1"=1'-0"



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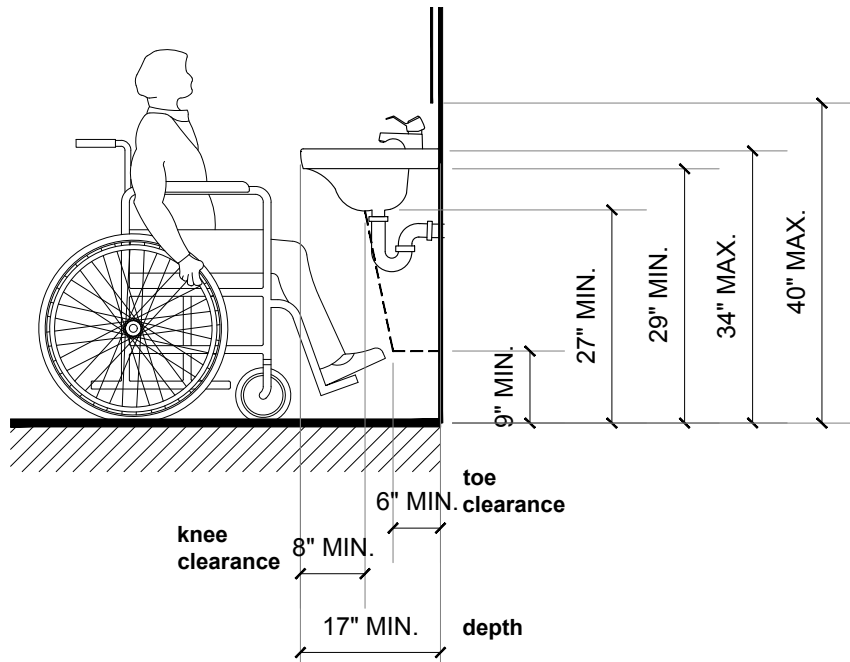
SCHEDULES & DETAILS

SHEET

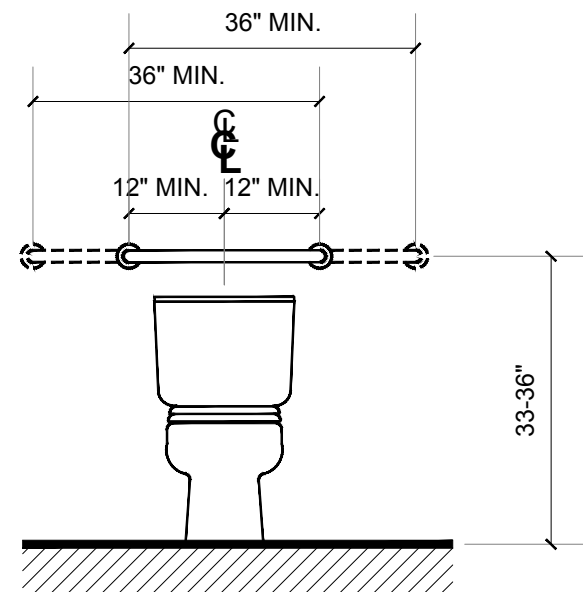
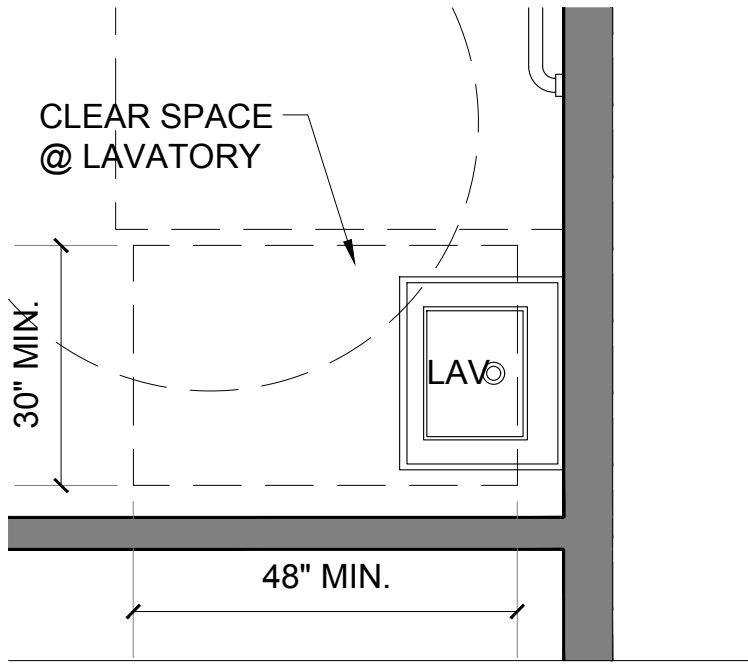
A6



Examples of Accessible Door Hardware			
Handle	Pull	Bar	Lever



NOTE: equipment permitted in dashed area



(a) Back Wall

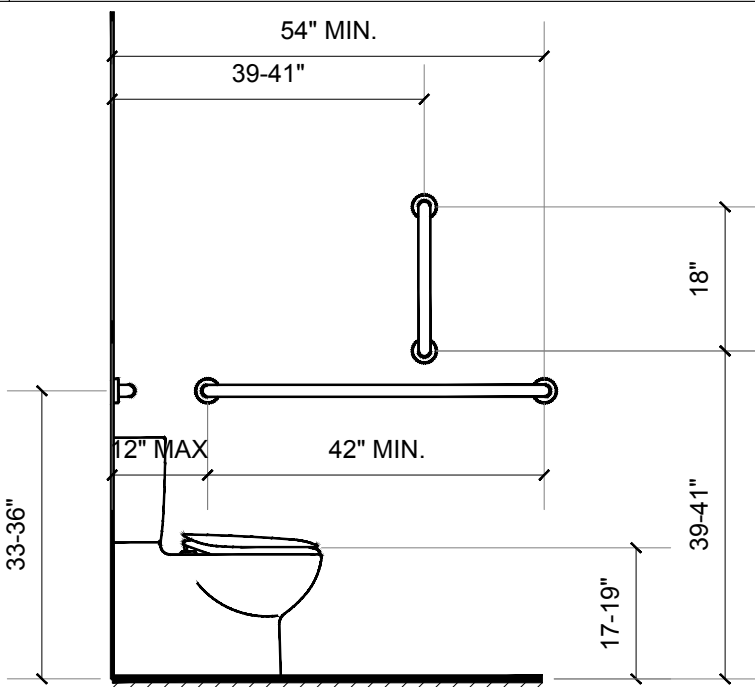


Fig. 12a Seat Height and Grab Bar Locations

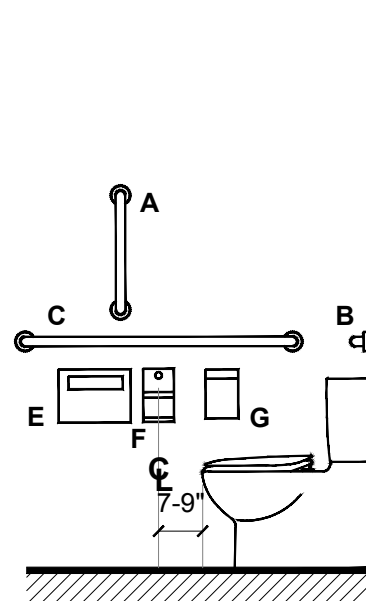


Fig. 12d Surface Mounted Dispensers

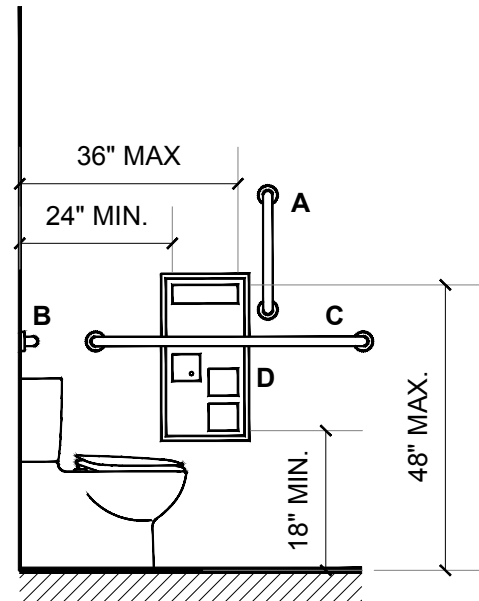


Fig. 12e Recessed Dispensers

LEGEND

- A 18" VERTICAL GRAB BAR
- B 36" HORIZONTAL GRAB BAR
- C 42" HORIZONTAL GRAB BAR
- D RECESSED TOILET SEAT DISPENSER, SANITARY NAPKIN DISPOSAL, TOILET TISSUE DISPENSER

- E SURFACE MOUNTED TOILET SEAT COVER DISPENSER (MOUNTS BELOW GRAB BAR)
- F SURFACE MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER (MOUNTS BELOW GRAB BAR)
- G SURFACE MOUNTED SANITARY NAPKIN DISPOSAL (MOUNTS BELOW GRAB BAR)

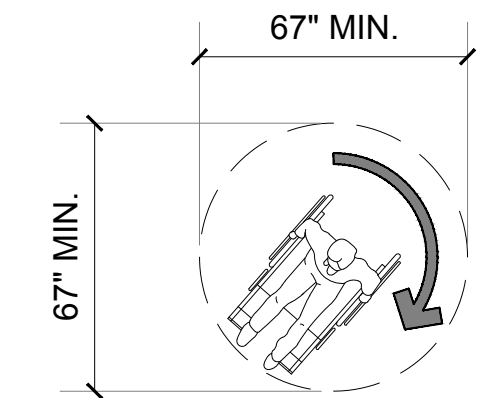
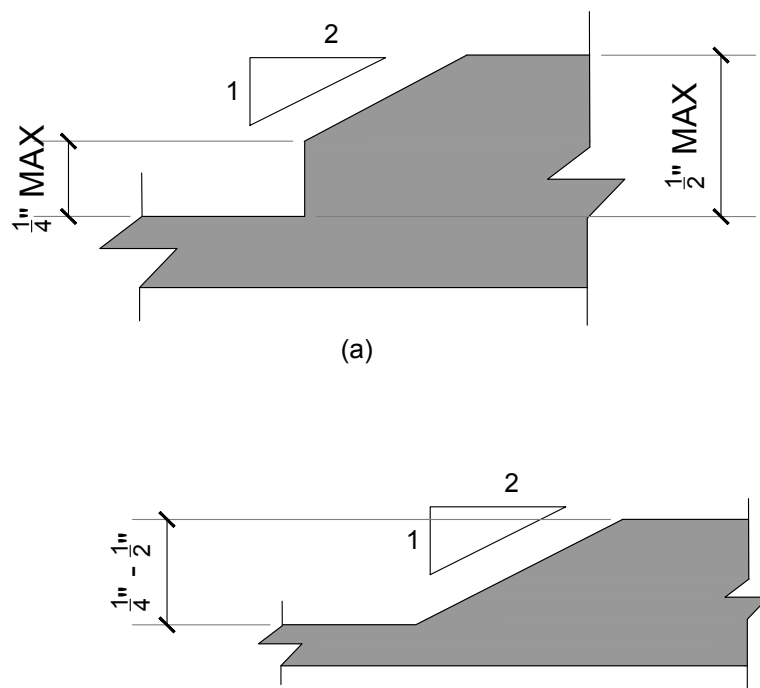
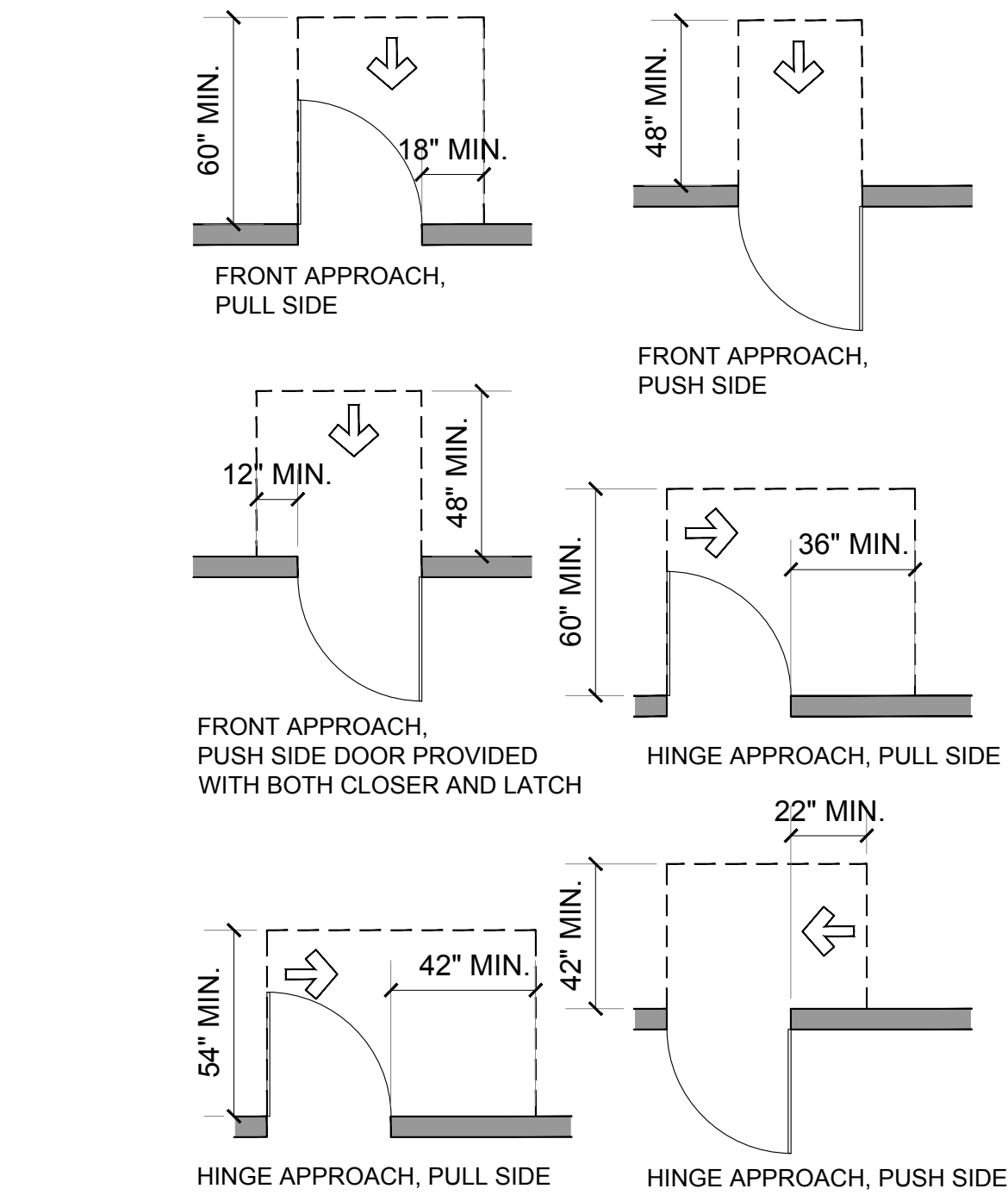
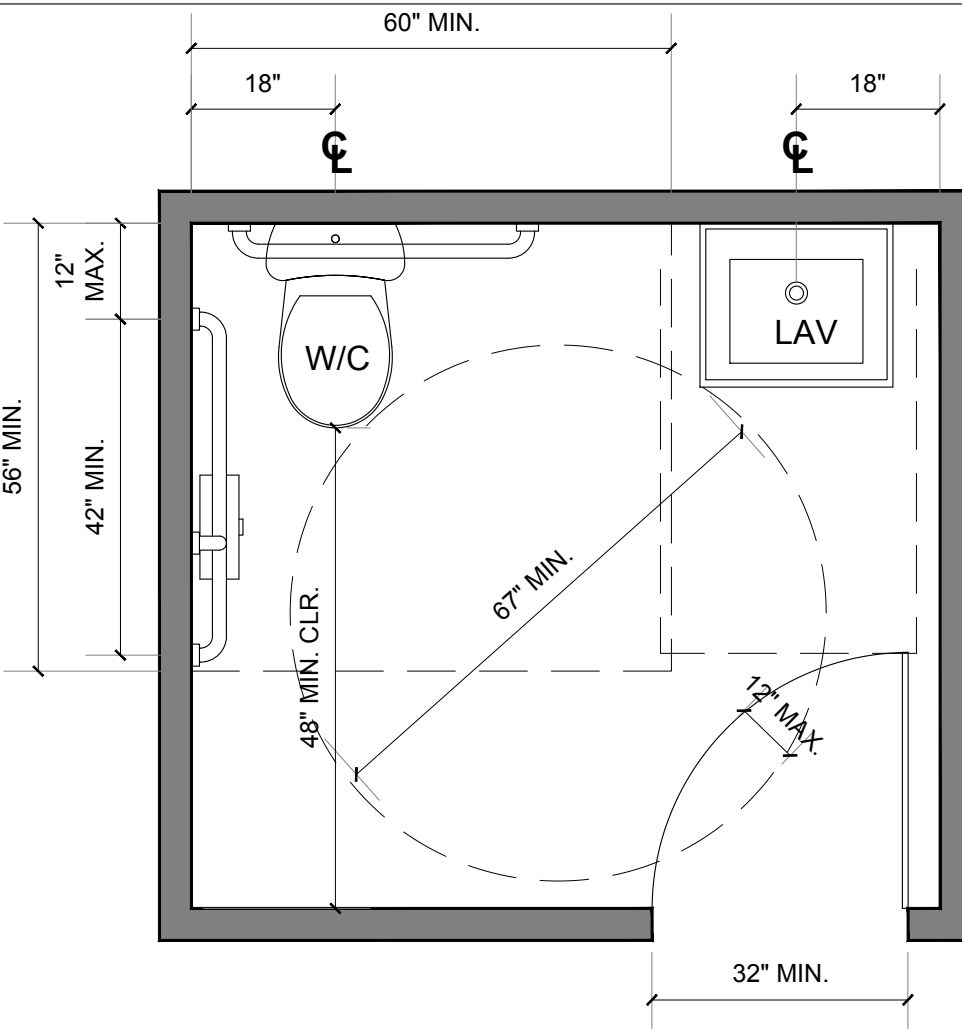
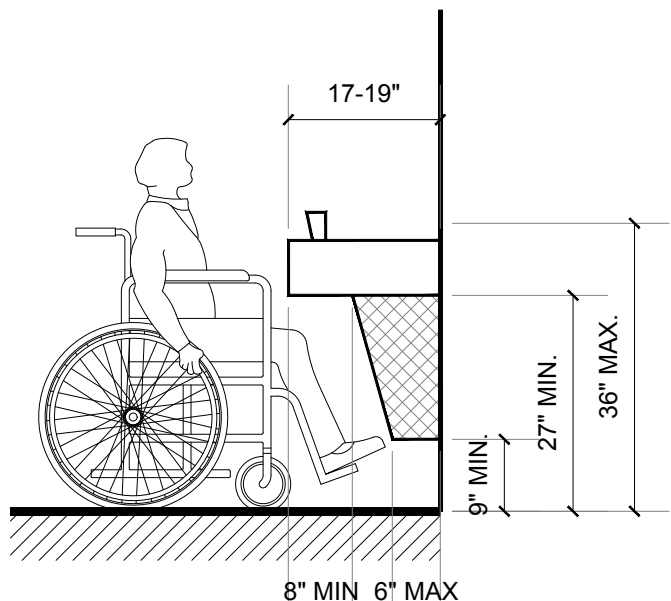
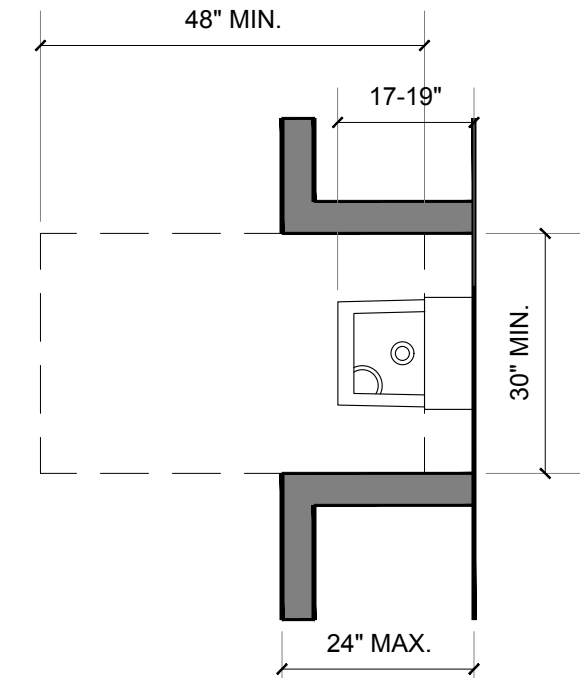


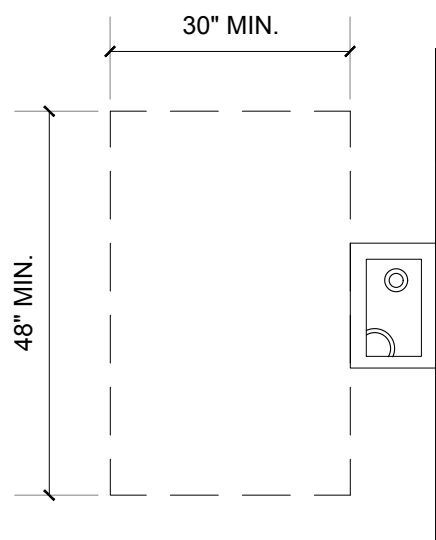
Fig. 2a 60 inch (1525 mm) Diameter Turning Space



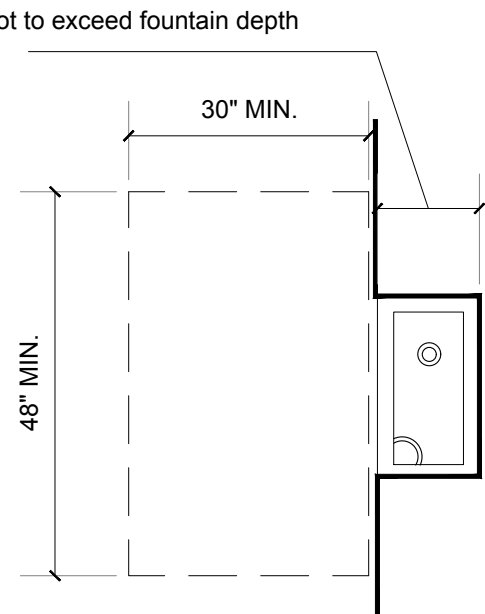
NOTE: equipment permitted in shaded area  
(a) Spout Height and Knee Clearance



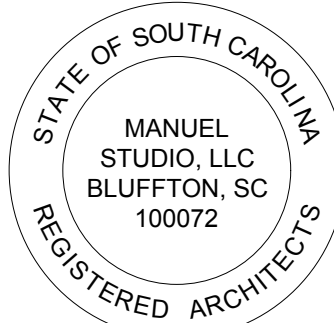
(b) Clear Floor Space



(c) Free Standing Fountain or Cooler



(d) Built-In Fountain or Cooler



DATE :  
12/6/23

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MIXED USE BUILDING FOR  
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10 CARROLL COURT  
BLUFFTON, SC 29910

ANSI ILLUSTRATIONS

SHEET

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