



artistic illustration only - not for construction

2011.049



ma architects
ma-architects.com



WARNER JUNCTION

columbus, ohio

rendering - state street
5.6.2014

© 2014 M+A Architects



artistic illustration only - not for construction

2011.049



ma architects
ma-architects.com



WARNER JUNCTION

columbus, ohio

rendering - mcdowell street
5.6.2014

© 2014 M+A Architects



elevation along state street



elevation along mcdowell street

artistic illustration only - not for construction

2011.049



ma architects

ma-architects.com



WARNER JUNCTION

columbus, ohio

streetscape elevations
5.6.2014

© 2014 M+A Architects

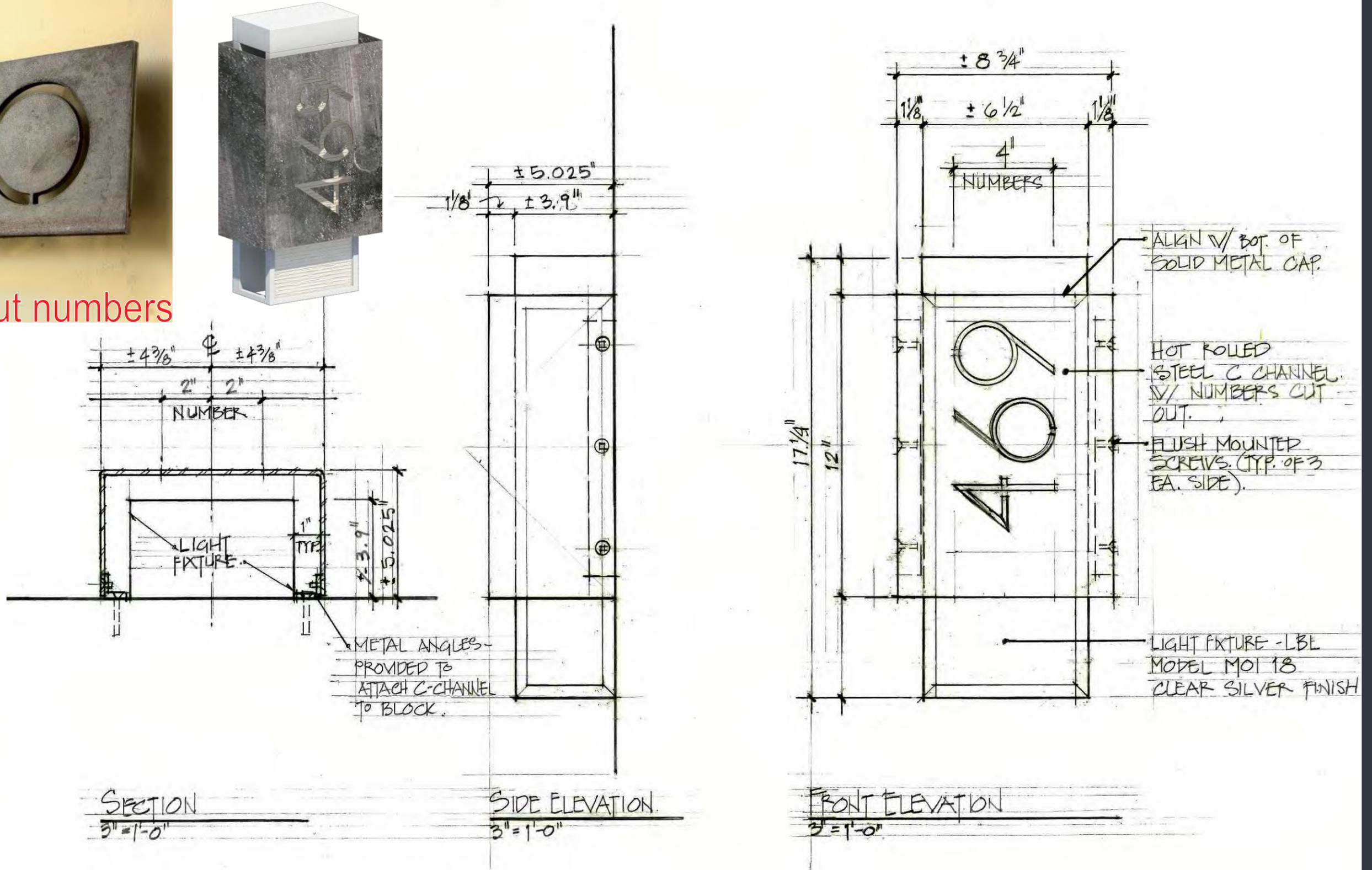


steel plate with cut numbers



LBL MOI 18

artistic illustration only - not for construction



2011.049



ma architects

ma-architects.com



WARNER JUNCTION
columbus, ohio

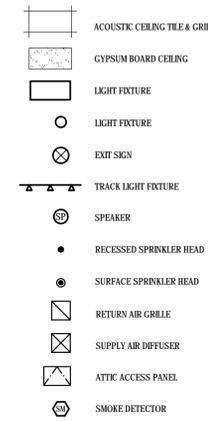
entry lights
5.6.2014

© 2014 M+A Architects

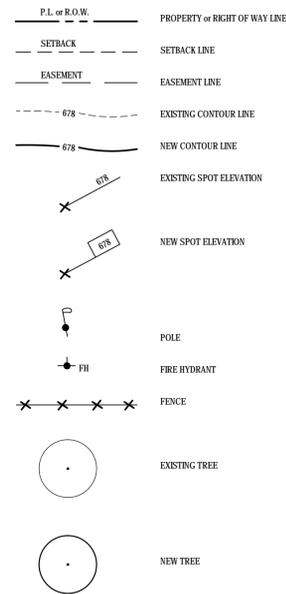
DRAWING SYMBOLS

REFLECTED CEILING PLAN

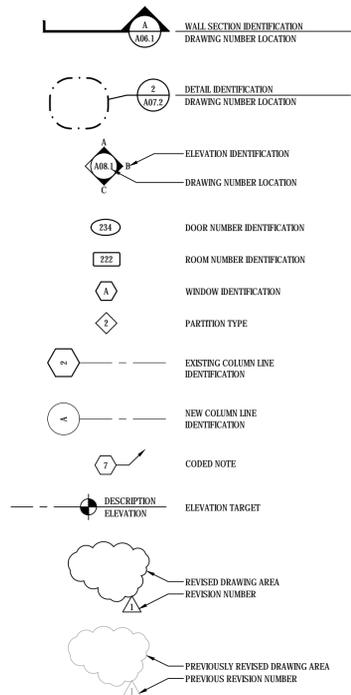
GENERALLY, ONLY CEILING MOUNTED FIXTURES ARE SHOWN ON THIS PLAN. REFER TO THE ELECTRICAL LIGHTING PLANS FOR COMPLETE INFORMATION ON THE TYPE AND LOCATION OF ALL EXIT, DISCHARGE, AND EMERGENCY EGRESS FIXTURES.



SITE PLAN

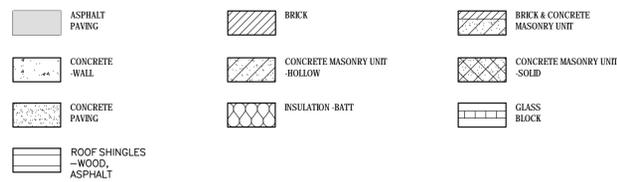


PLAN, ELEVATION, SECTION & DETAIL

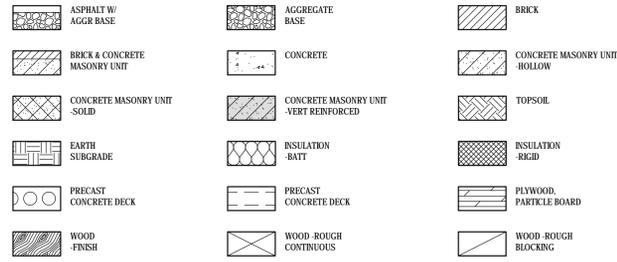


MATERIAL INDICATIONS

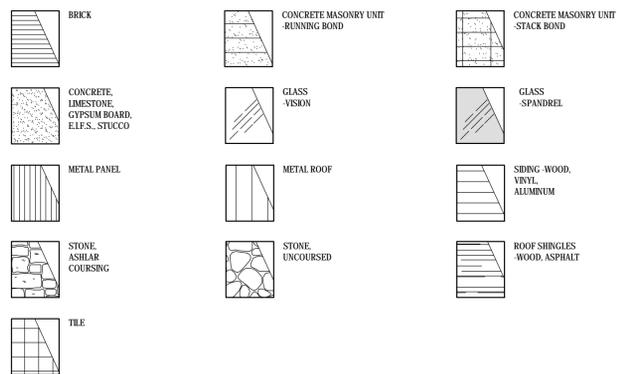
PLAN



SECTION / DETAIL



ELEVATION



DIMENSIONING METHOD

- UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE 'ROUGH' DIMENSIONS THAT DO NOT INCLUDE SUBSEQUENTLY APPLIED FINISH MATERIAL THICKNESSES.
- DIMENSIONS NOTED AS 'FIN' ARE FINISH DIMENSIONS THAT DO INCLUDE SUBSEQUENTLY APPLIED FINISH MATERIAL THICKNESSES.
- DIMENSIONS NOTED AS 'FIELD VERIFY' SHALL BE CHECKED AT THE SITE BY THE CONTRACTOR AND REVIEWED BY THE ARCHITECT PRIOR TO THEIR INCORPORATION INTO THE WORK.
- DIMENSIONS NOTED AS 'HOLD' SHALL BE MAINTAINED WITHOUT VARIANCE.
- DIMENSIONS NOTED AS 'N.T.S.' ARE GREATER OR LESS THAN THE PHYSICAL RELATIONSHIP SHOWN.
- DIMENSIONED WALL THICKNESSES ARE ACTUAL THICKNESSES UNLESS NOTED OTHERWISE. NOMINAL DIMENSIONS ARE USED TO DESCRIBE MATERIALS SUCH AS CONCRETE BLOCK, BRICK, AND WOOD FRAMING.

ABBREVIATIONS

SYMBOLS

&	AND
∠	ANGLE
⊕	FAB
∩	CENTER LINE
⊖	DIAMETER or ROUND
#	POUND or NUMBER
ABV	ABOVE
A.B.	ANCHOR BOLT
A.C.	ACOUSTICAL CEILING
A.C.T.	ACOUSTICAL CEILING TILE
A.D.	AREA DRAIN
ADJ	ADJUSTABLE or ADJACENT
A.F.F.	ABOVE FINISH FLOOR
AGGR	AGGREGATE
ALUM	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
A.P.	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
AUTO	AUTOMATIC
AVE	AVENUE
A.W.C.	ACOUSTIC WALL COVERING

B/	BOTTOM OF
BD	BOARD
B.F.F.	BELOW FINISH FLOOR
BTUM	BITUMINOUS
B.L.	BORROWED LIGHT
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BN	BULLNOSE
BOT	BOTTOM
BRG	BREACING
BRG	BEARING
BRK MTL	BRAKE METAL
B.RM	BEDROOM
BSMT	BASEMENT
B.U.R.	BUILT-UP ROOFING
B.W.	BOTH WAYS
CL	CENTERLINE
CAB	CABINET
CB	CHALKBOARD
C.B.	CATCH BASIN
C.C.M.	CAST CONCRETE MASONRY
CEM	CEMENT
CEM	CERAMIC
C.F.M.F.	COLD-FORMED METAL FRAMING
C.G.	CORNER GUARD
CL	CAST IRON
C.J.	CONTROL JOINT
CKTP	COOKTOP
CL	CLOSET
CLG	CEILING
CLK	CAULKING
CLR	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
CNTR	COUNTER
C.O.	CLEAN OUT
COL	COLUMN
COMP	COMPACT (ED)
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECT or CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPD	CARPET PAD
CPT	CARPET
CBS	COURSE
C.T.	CERAMIC TILE
CTOP	COUNTERTOP
CTR	CENTER
CTSK	COUNTERSUNK or COUNTERSINK

DBL	DOUBLE
DEMO	DEMOLISH or DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
D.F.	DRINKING FOUNTAIN
DI	DIAMETER
DIAG	DIAGONAL
DM	DIMENSION
DSP	DISPENSER
DK	DARK
DN	DOWN
D.O.	DOOR OPENING
DP	DEEP
DR	DRIVE
DS	DOWNSPOUT
DW	DRYWASHER
DWG	DRAWING
E	EAST
EA	EACH
E.C.	ELECTRICAL CONTRACTOR
E.E.	EACH END
E.F.S.	EXTERIOR FINISH SYSTEM
E.F.S.	EXTERIOR INSULATION & FINISH SYSTEM
E.J.	EXPANSION JOINT
EL	ELEVATION (vertical height)
ELEC	ELECTRICAL
ELEV	ELEVATION (view) or ELEVATOR
EMER	EMERGENCY
EQ	EQUIPMENT
EQU	EQUIP
E.W.	EACH WAY
E.W.C.	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED or EXPANSION
EXT	EXTERIOR

F/	FACE OF
FA	FIRE ALARM
FAB	FABRICATE or FABRICATED
F.D.	FLOOR DRAIN
FIN	FOUNDATION
F.F.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
FG	FIBERGLASS
F.H.	FIRE HYDRANT
F.L.C.	FIRE LOUSE CABINET
FN	FINISH
FR	FLOOR
FLSH	FLASHING
FLSHG	FLASHING
FLUOR	FLUORESCENT
F.P.	FIRE PROTECTION
F.R.	FIRE RATED
F.R.P.	FIBERGLASS REINFORCED PLASTIC
FRFP	FIREPROOF
F.R.T.	FIRE RETARDANT TREATED
F.R.T.W.	FIRE RETARDANT TREATED WOOD
FT	FOOT or FEET
FTG	FOOTING
FURN	FURNACE or FURNITURE
FURR	FURRING
FUT	FUTURE
F.V.	FIELD VERIFY

C	CAS
GA	GAUGE
GALV	GALVANIZED
G.B.	GRAB BAR
G.C.	GENERAL CONTRACTOR
G.F.R.C.	GLASS FIBER REINFORCED CONCRETE
G.F.R.G.	GLASS FIBER REINFORCED GYPSUM
GL	GLASS-MAT
GL	GLASS
GND	GROUND
GR	GRADE
G.P.S.M.	GYPSUM
H	HIGH (vertical length)
H.B.	HOLLOW CORE
H.C.	HOLLOW CORE
HCP	HANDICAPPED
H.D.	HEAVY DUTY or HIGH DENSITY
HDWD	HARDWOOD
HDWR	HARDWARE
HR	HOOR
H.M.	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HANDRAIL or HOUR
HT	HEIGHT
ID.	INSIDE DIAMETER
INSUL	INSULATION or INSULATED
INT	INTERIOR
JAN	JANITOR
JST	JOIST
JT	JOINT
KITCHEN	KITCHEN
K.D.	KNOCK DOWN or KILN-DRIED
K.O.P.	KNOCK OUT PANEL

L	LENGTH
∠	ANGLE (structural)
LAB	LABORATORY
LAM	LAMINATE
LAV	LAVATORY
LG	LONG or LARGE
LINEAL	LINEAL
LR	LOCKER
L.L.H.	LONG LEG HORIZONTAL
L.V.	LONG LEG VERTICAL
LND	LAUNDRY
L.RM	LIVING ROOM
L.V.L.	LAMINATED VENEER LUMBER
LT	LIGHT
M	MENS, METER
MB	MARREROBOARD
MM	MILIMETER
MAN	MANUAL
MAS	MASONRY
MTL	MATERIAL
MAX	MAXIMUM
M.C.	MECHANICAL CONTRACTOR or MECHANICAL CABINET
M.D.	MEDIUM DENSITY
M.D.O.	MEDIUM DENSITY OVERLAY
MCH	MECHANICAL or MECHANICALLY
MED	MEDIUM
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MW	MICROWAVE
ML (MT)	MINUTE
ML	MINUTE or MINUTE
MIR	MIRROR
MISC	MISCELLANEOUS
M.O.	MASONRY OPENING
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MUL	MULLION
N	NORTH
N.A.	NOT APPLICABLE
N.C.	NOT IN CONTRACT
NOM	NOMINAL
N.T.S.	NOT TO SCALE
OA	OVERALL
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OFF	OFFICE
OPB	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORNB	ORIENTAL
O.S.B.	ORIENTED STRAND BOARD
OV	OVEN
OVHD	OVERHEAD
OVHG	OVERHANG

PART	PARTITION
PB	PARTICLEBOARD
PC	PRECAST
P.C.	PLUMBING CONTRACTOR
P.E.M.B.	PRE-ENGINEERED METAL BUILDING
PERF	PERFORATED
PERP	PERPENDICULAR
PL	PLATE
P.L. or t	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PLMG	PLUMBING
PLYWD	PLYWOOD
POLY	POLYETHYLENE
PR	PUR
P.R.E.	PRE-ENGINEERED
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PT	POND
P.T.	PRESERVATIVE-TREATED
PTD	PAINTED
P.T.D.	PAPER TOWEL DISPENSER
P.T.D.R.	PAPER TOWEL DISPENSER WITH RECEPTACLE
P.T.L.	PAPER TOWEL RECEPTACLE
P.V.C.	POLYVINYL CHLORIDE

Q.T.	QUARRY TILE
R	RESER or RESISTANCE (insulation)
RAD	RADIUS
R.B.	RESILIENT BASE
R.C.P.	REINFORCED CONCRETE PIPE
RECT	RECTANGULAR
R.D.	ROOF DRAIN
RECT	RECTANGULAR
RECT	RECEPTACLE
RENF	REINFORCED or REINFORCING
REM	REMOVE
REQD	REQUIRED
RETS	REQUIREMENTS
RES	RESILIENT
REF	REFRIGERATOR
RM	ROOM
RNG	RANGE
R.O.	ROUGH OPENING
R.O.W.	RIGHT OF WAY
R.P.	RAISED PANEL (door)
R.T.	RESILIENT TILE

S	SOUTH
SAN	SANITARY
S.C.	SOLID CORE
SCH	SCHEDULE
S.D.	SOAP DISPENSER
SECT	SECTION
S.F.	SQUARE FOOT
SH	SHelf
SHR	SHOWER
SHT	SHEET
SHTG	SHEATHING
SM	SIMILAR
S.M.D.	SANITARY NAPKIN DISPENSER
SUSP	SUSPENDED
S.W.R.	SECONDARY WATER-RESISTIVE BARRIER
S.Y.	SQUARE YARD
S.V.M.	SYMMETRICAL
SYS	SYSTEM
T	TREAD or TEMPERED
T	TOP OF
TB	TACKBOARD
T.B.	TOWEL BAR
TAB	TOP AND BOTTOM
T.D.	TOWEL DISPENSER
TEL	TELEPHONE
TEMP	TEMPORARY
TERAZZO	TERAZZO
TRMR	TRANSFORMER
TAG	TONGUE AND GROOVE
TRK	TRUCK
TRHU	THROUGH
T.P.D.	TOILET PAPER DISPENSER
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
U.L.L.	UNDERWRITERS LABORATORIES INC
UNFN	UNFINISHED
UNI	UNISEX
U.N.O.	UNLESS NOTED OTHERWISE
UR	URNAL
UTL	UTILITY
V.B.	VAPOR BARRIER
V.C.T.	VINYL COMPOSITION TILE
VEND	VENDING
VERT	VERTICAL
VEST	VESTIBULE
V.F.	VERIFY IN FIELD
V.V.	VINYL
V.R.	VAPOR RETARDER
V.W.F.	VINYL WALL FABRIC
W	WIDTH, WEST, WATER, or WIDE FLANGE
W	WITH
W.C.	WATER CLOSET
WD	WOOD
WI	WITHIN
WO	WITHOUT
WP	WATERPROOF
W.R.	WATER RESISTANT
W.R.B.	WATER-RESISTIVE BARRIER
WST	WARSQUAT
WEL	WELDED
W.W.F.	WELDED WIRE FABRIC
YD	YARD
Y.D.	YARD DRAIN

ARCHITECTURAL STANDARDS DRAWING

THE ABBREVIATIONS, MATERIAL INDICATIONS, DRAWING SYMBOLS AND DIMENSIONING METHODS SHOWN ON THIS DRAWING APPLY TO THE ARCHITECTURAL DRAWINGS ONLY.

REFER TO THE SITE SURVEY, SITE DEVELOPMENT, LANDSCAPING, STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR INFORMATION SPECIFIC TO THOSE DRAWINGS.

SEVERAL ABBREVIATIONS HAVE MORE THAN ONE MEANING. CONTACT THE ARCHITECT FOR CLARIFICATION IF THE NOTE CONTEXT DOES NOT CLEARLY INDICATE THE INTENDED USAGE.

ABBREVIATIONS ARE LISTED IN ALPHABETICAL ORDER, NOT THE WORDS THEY REPRESENT.



775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

Warner Junction

120 McDowell Street

STATUS:

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

M+A

DATE:

05-06-2014

SHEET NUMBER:

A0.1

ma architects



775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

Columbus, Ohio 43215

120 McDowell Street

Warner Junction

STATUS:

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

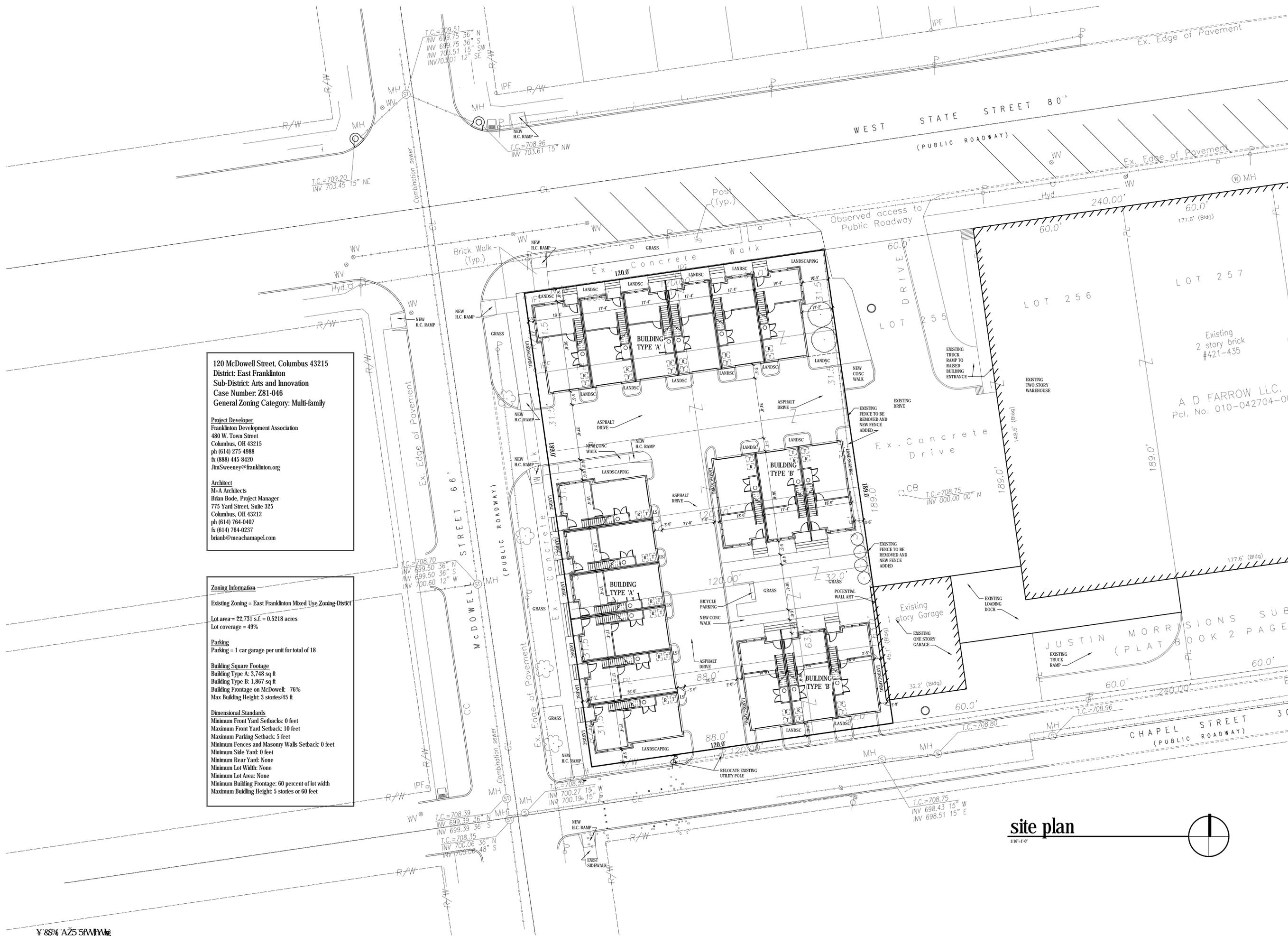
DATE:

05-06-2014

SHEET NUMBER:

A1.1

ma architects



120 McDowell Street, Columbus 43215
District: East Franklinton
Sub-District: Arts and Innovation
Case Number: Z81-046
General Zoning Category: Multi-family

Project Developer
Franklinton Development Association
480 W. Town Street
Columbus, OH 43215
ph (614) 275-4988
fx (888) 445-8420
jim.sweeney@franklinton.org

Architect
M+A Architects
Brian Bode, Project Manager
775 Yard Street, Suite 325
Columbus, OH 43212
ph (614) 764-0407
fx (614) 764-0237
brianb@meachamapel.com

Zoning Information

Existing Zoning = East Franklinton Mixed Use Zoning-District

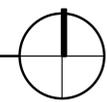
Lot area = 22,731 s.f. = 0.5218 acres
Lot coverage = 49%

Parking
Parking = 1 car garage per unit for total of 18

Building Square Footage
Building Type A: 3,748 sq ft
Building Type B: 1,867 sq ft
Building Frontage on McDowell: 76%
Max Building Height: 3 stories/45 ft

Dimensional Standards
Minimum Front Yard Setbacks: 0 feet
Maximum Front Yard Setback: 10 feet
Maximum Parking Setback: 5 feet
Minimum Fences and Masonry Walls Setback: 0 feet
Minimum Side Yard: 0 feet
Minimum Rear Yard: None
Minimum Lot Width: None
Minimum Lot Area: None
Minimum Building Frontage: 60 percent of lot width
Maximum Building Height: 5 stories or 60 feet

site plan



88% AZ55WMM



775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

Warner Junction

120 McDowell Street

STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

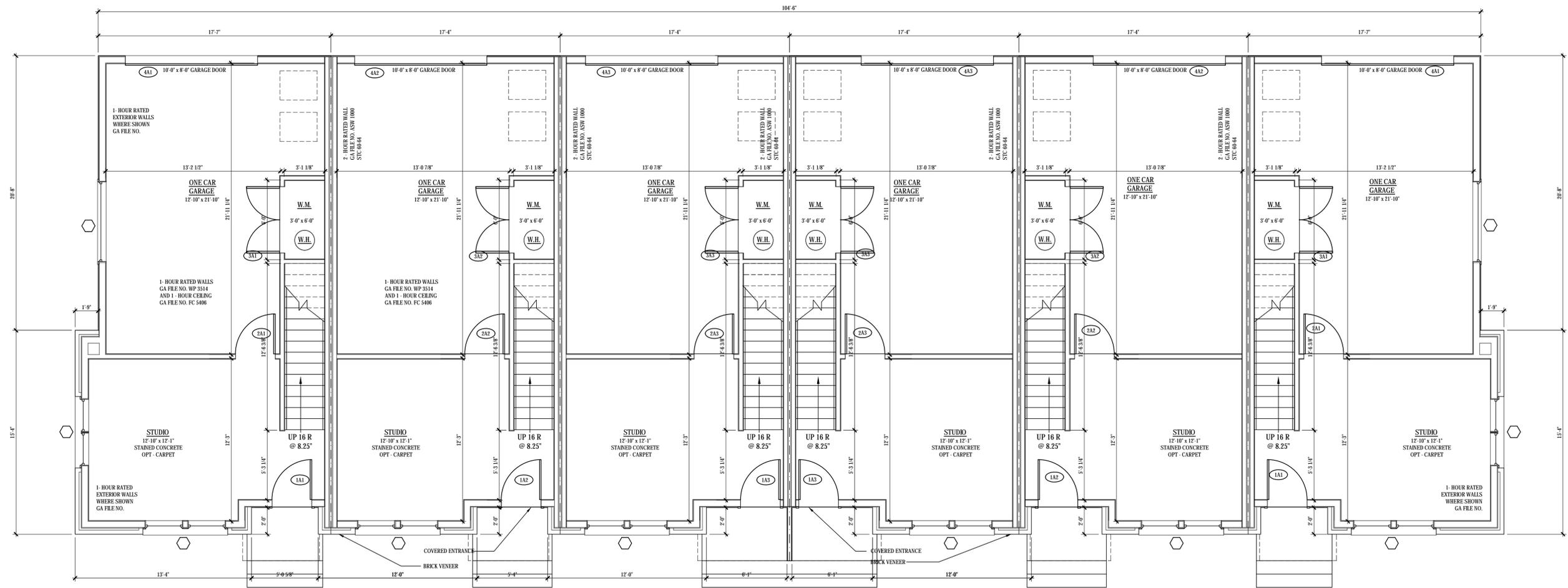
DATE:

05-06-2014

SHEET NUMBER:

A2.1

ma architects



building 'A' - first floor plan





775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

Wamer Junction

120 McDowell Street

STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

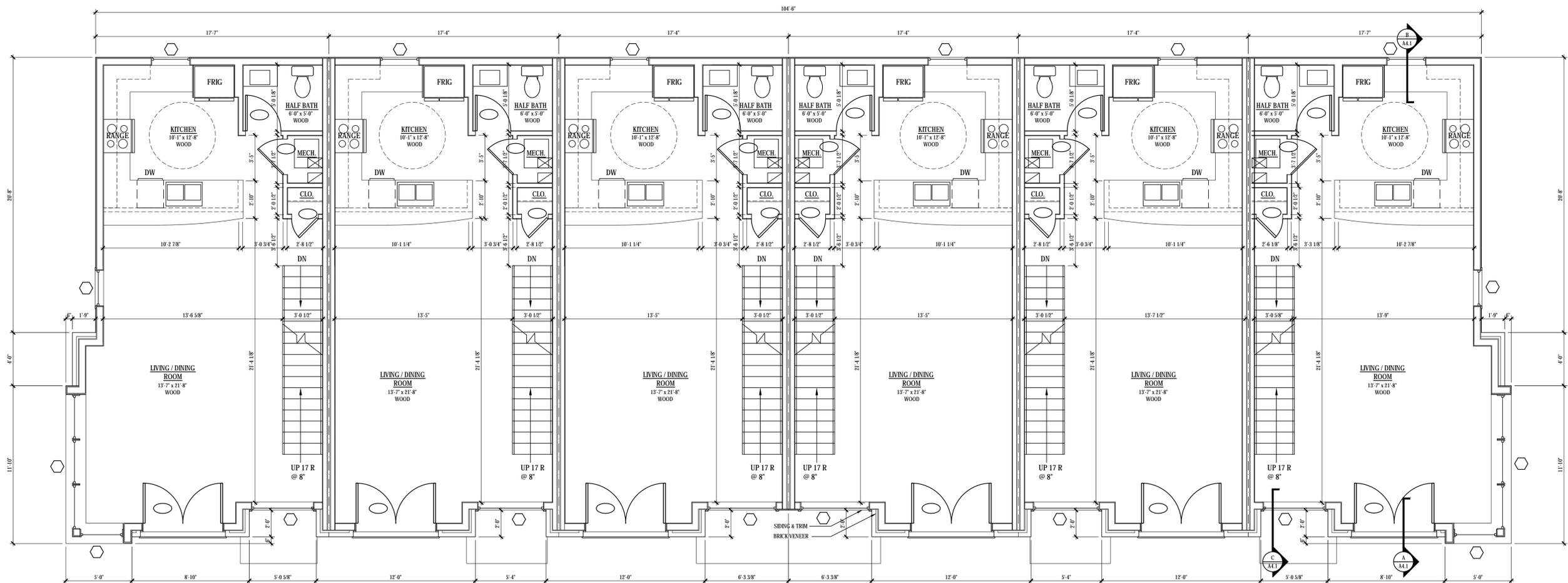
DATE:

05-06-2014

SHEET NUMBER:

A2.2

ma architects



building 'A' - second floor plan

1/4"=1'-0"





775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

Warner Junction

120 McDowell Street

STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

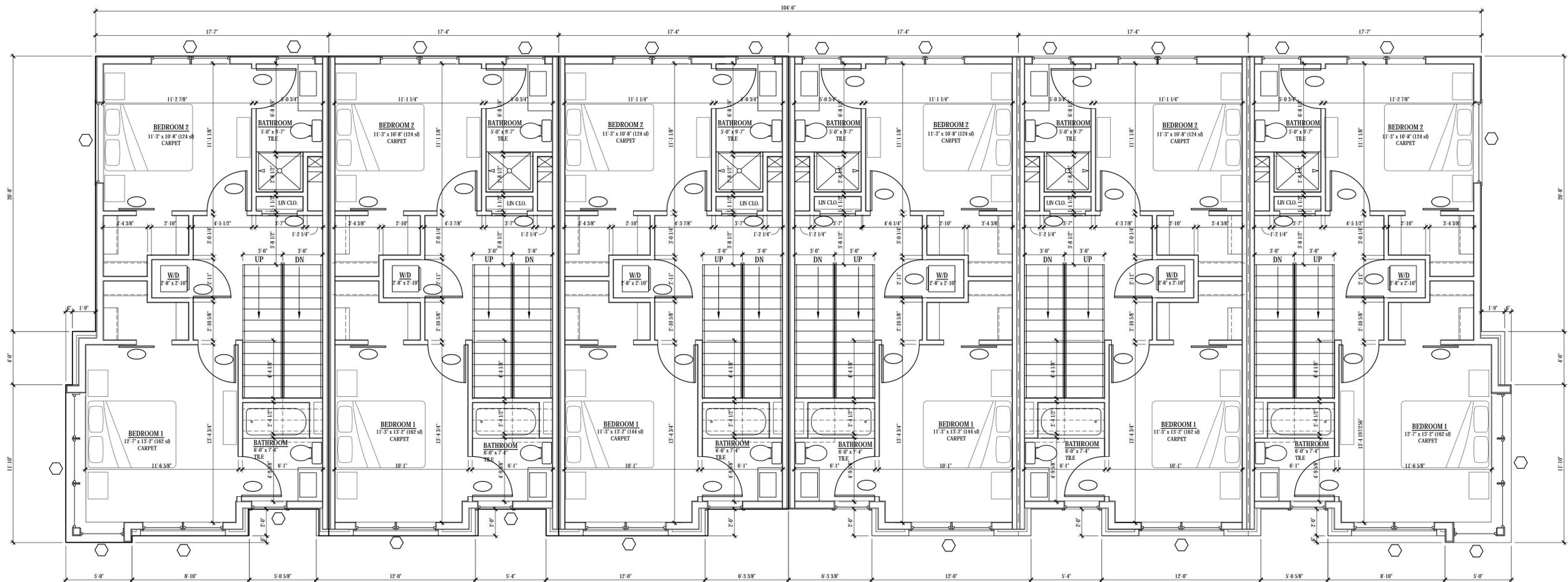
DATE:

05-06-2014

SHEET NUMBER:

A2.3

ma architects



building 'A' - third floor plan





775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

120 McDowell Street

Warner Junction

STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

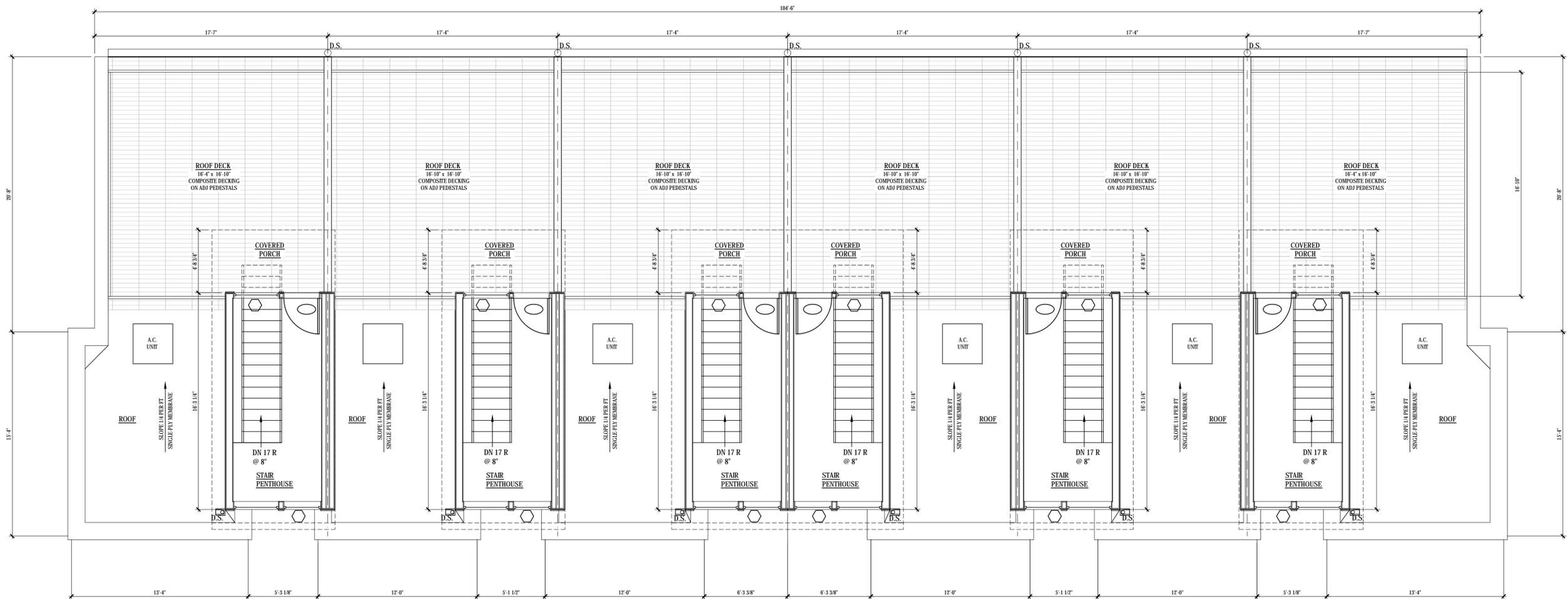
DATE:

05-06-2014

SHEET NUMBER:

A2.4

ma architects



building 'A' - roof plan

1/4"=1'-0"



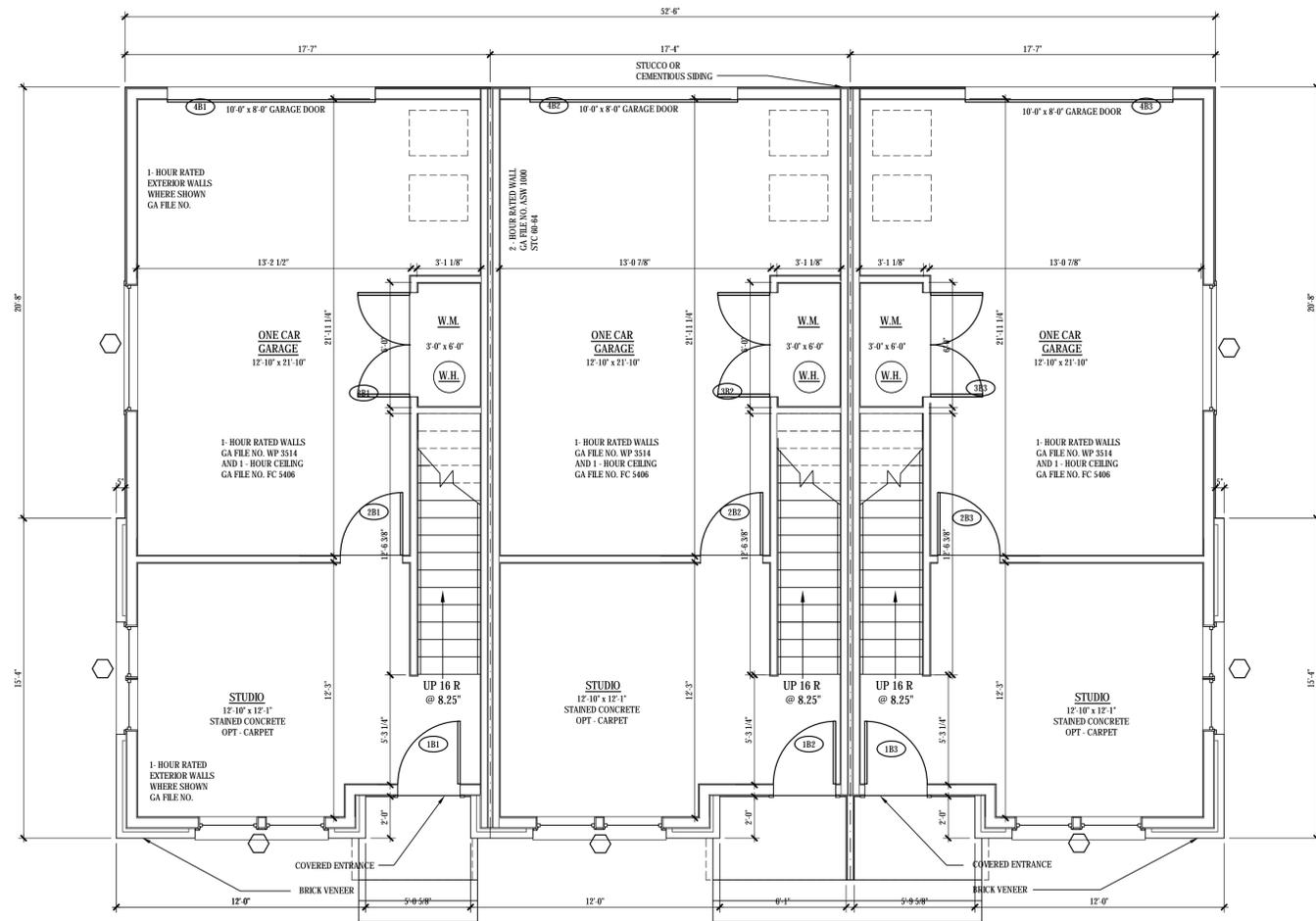


775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

Warner Junction

120 McDowell Street



building 'B' - first floor plan



STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

DATE:

05-06-2014

SHEET NUMBER:

A2.5



775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

120 McDowell Street

Warner Junction

STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

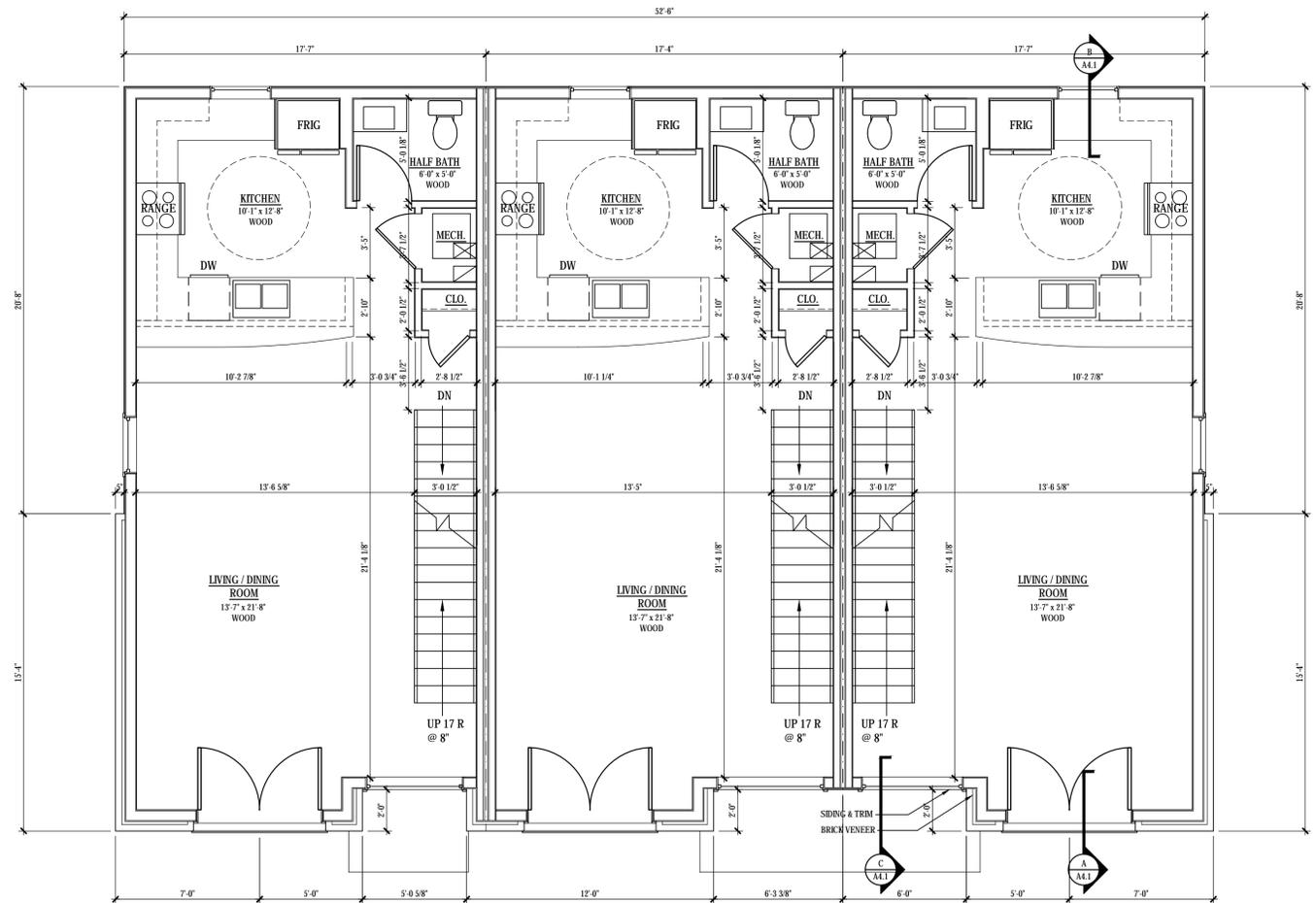
DATE:

05-06-2014

SHEET NUMBER:

A2.6

ma architects



building 'B' - second floor plan



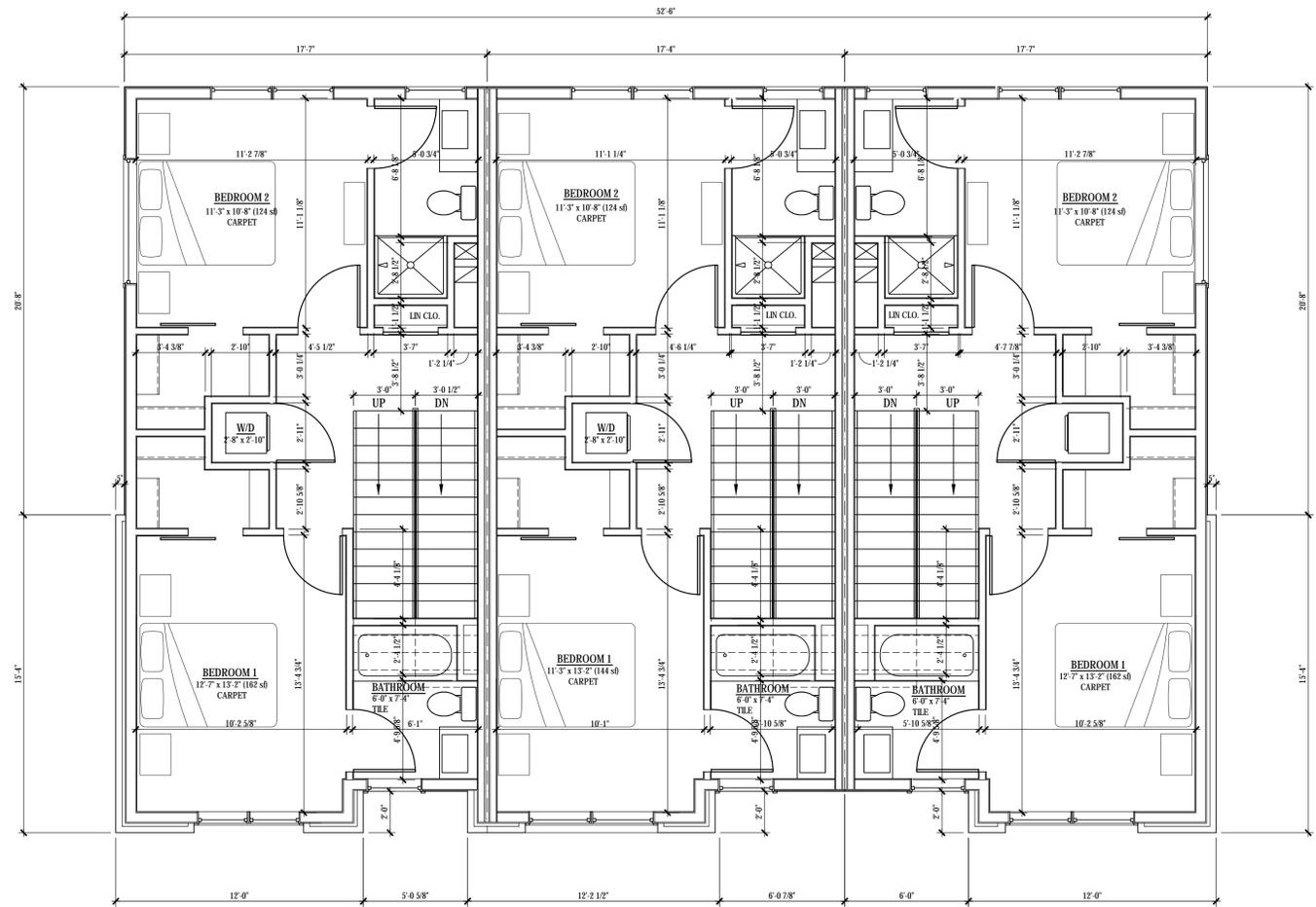


775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

Warner Junction

120 McDowell Street



building 'B' - third floor plan



STATUS: [REDACTED]

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION: [REDACTED]

PROJECT NUMBER:

11049

DRAWN BY:

BRB

DATE:

05-06-2014

SHEET NUMBER:

[REDACTED]

A2.7

ma architects

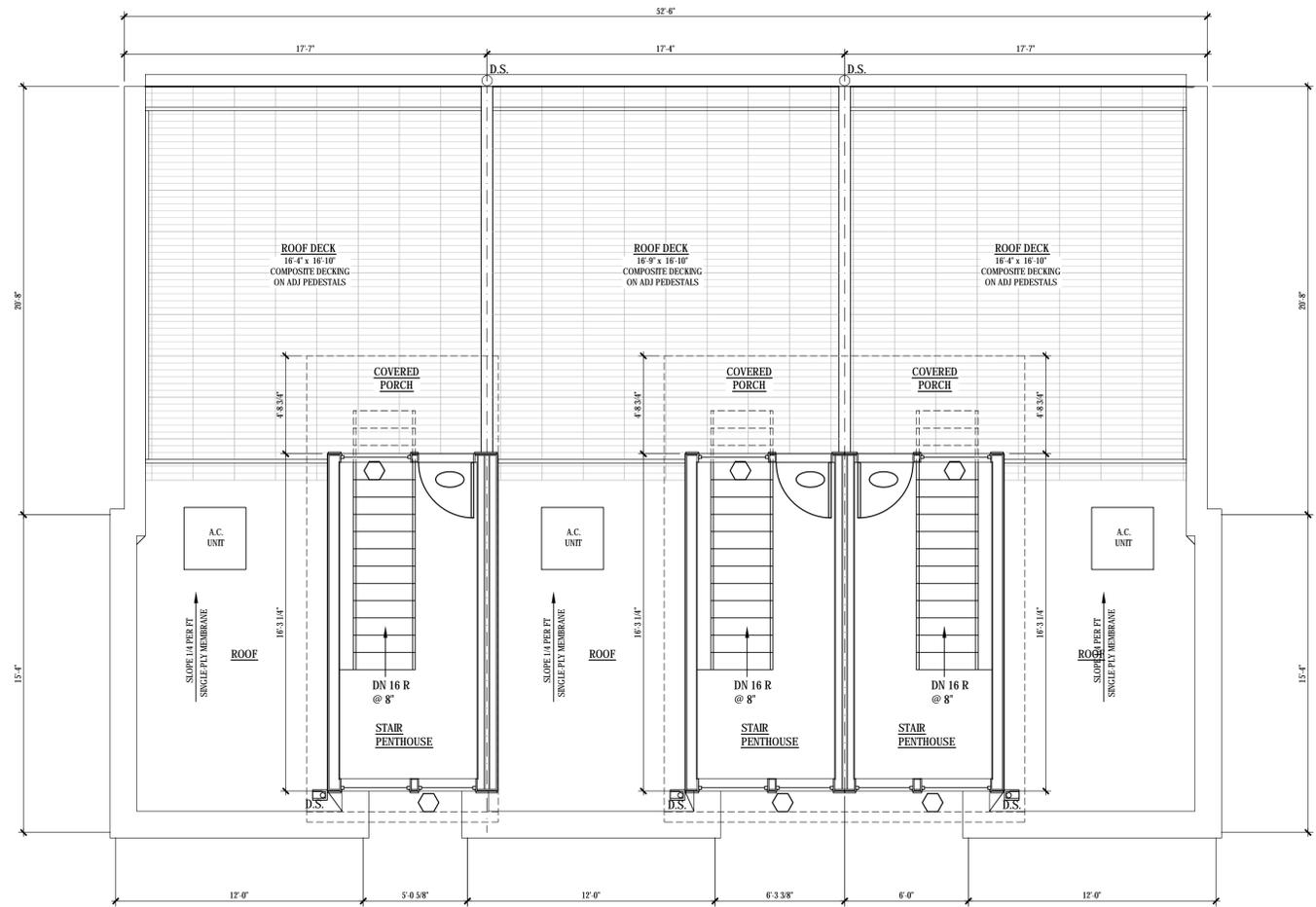


775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

Warner Junction

120 McDowell Street



building 'B' - roof plan

1/4"=1'-0"



STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

DATE:

05-06-2014

SHEET NUMBER:

A2.8

ma architects



775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

120 McDowell Street
 Columbus, Ohio 43215

Warner Junction

STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB, AML

DATE:

05-06-2014

SHEET NUMBER:

A3.1

ma architects



front elevation - building type A

1/4"=1'-0"



775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

120 McDowell Street
 Columbus, Ohio 43215

Warner Junction

STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB, AML

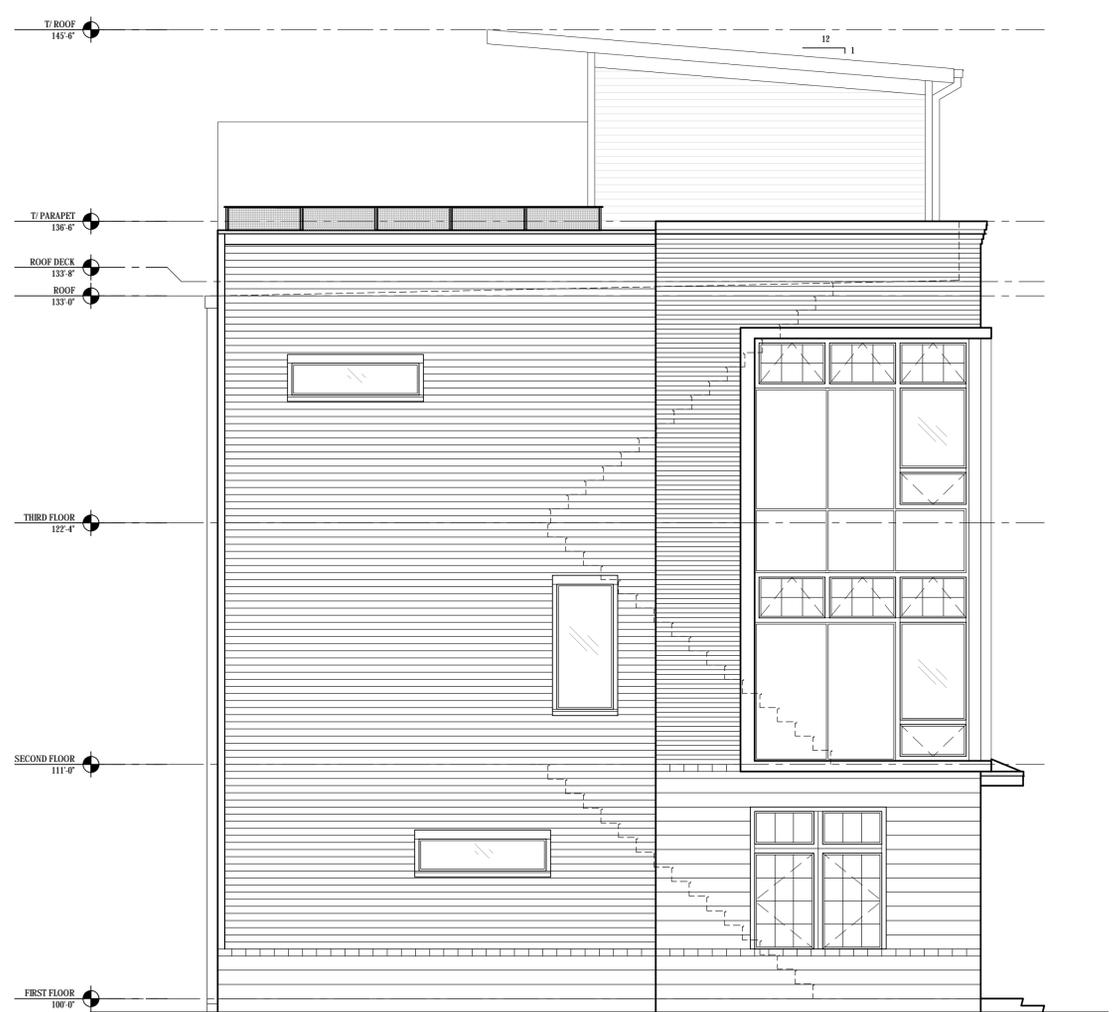
DATE:

05-06-2014

SHEET NUMBER:

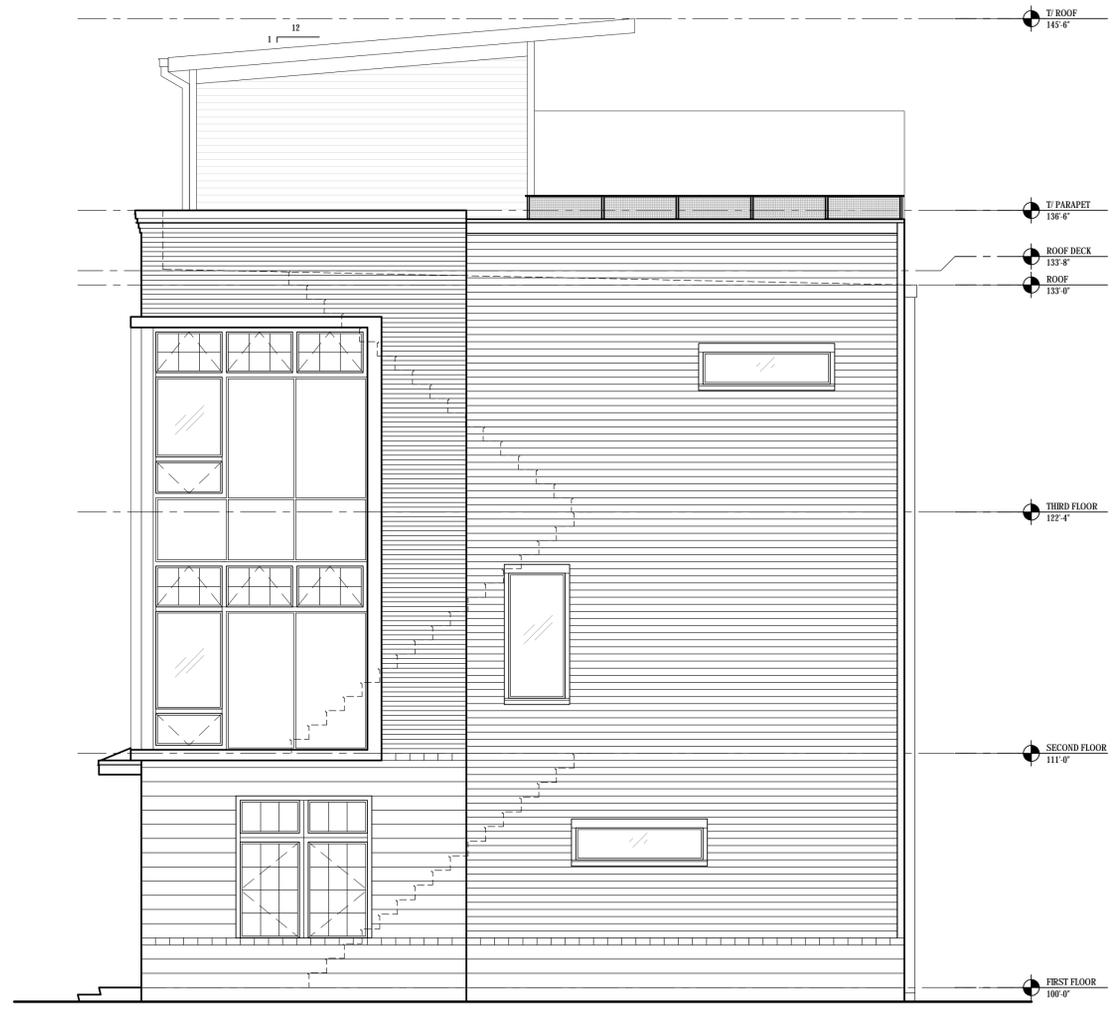
A3.2

ma architects



side elevation - building type A

1/4"=1'-0"



side elevation - building type A

1/4"=1'-0"



775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

120 McDowell Street
 Columbus, Ohio 43215

Warner Junction

STATUS: [REDACTED]

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION: [REDACTED]

PROJECT NUMBER:

11049

DRAWN BY:

BRB, AML

DATE:

05-06-2014

SHEET NUMBER:

A3.3

ma architects



rear elevation - building type A



775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

Columbus, Ohio 43215

Warner Junction

120 McDowell Street

STATUS:

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION:

PROJECT NUMBER:

11049

DRAWN BY:

BRB

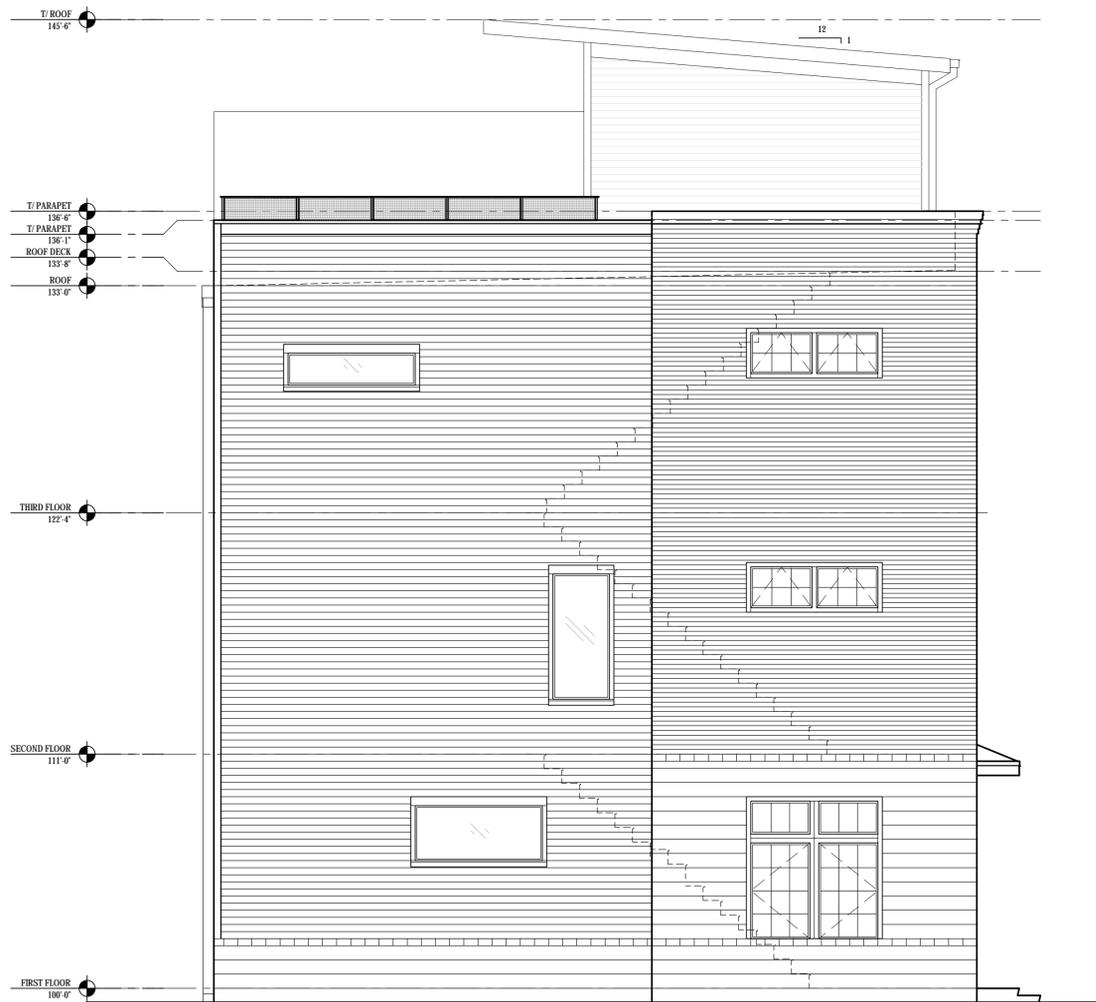
DATE:

05-06-2014

SHEET NUMBER:

A3.4

ma architects



side elevation - building type B

1/4"=1'-0"



front elevation - building type B

1/4"=1'-0"



775 Yard Street, Suite 325
 Columbus, Ohio 43212
 p 614 764 0407
 f 614 764 0237
 www.ma-architects.com

120 McDowell Street
 Columbus, Ohio 43215

Warner Junction

STATUS: [REDACTED]

PRELIMINARY
 NOT FOR CONSTRUCTION

REVISION: [REDACTED]

PROJECT NUMBER: [REDACTED]

11049

DRAWN BY: [REDACTED]

BRB, AML

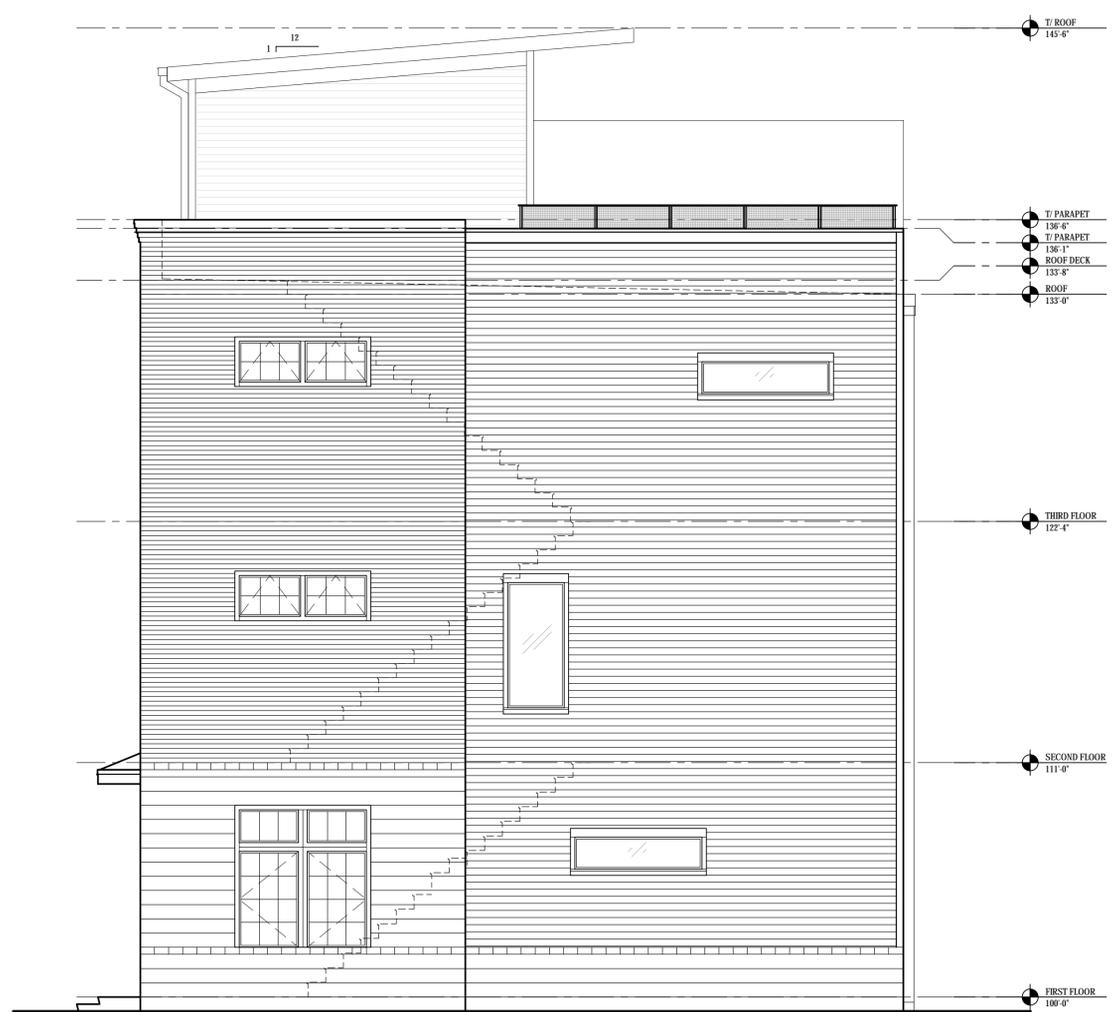
DATE: [REDACTED]

05-06-2014

SHEET NUMBER: [REDACTED]

A3.5

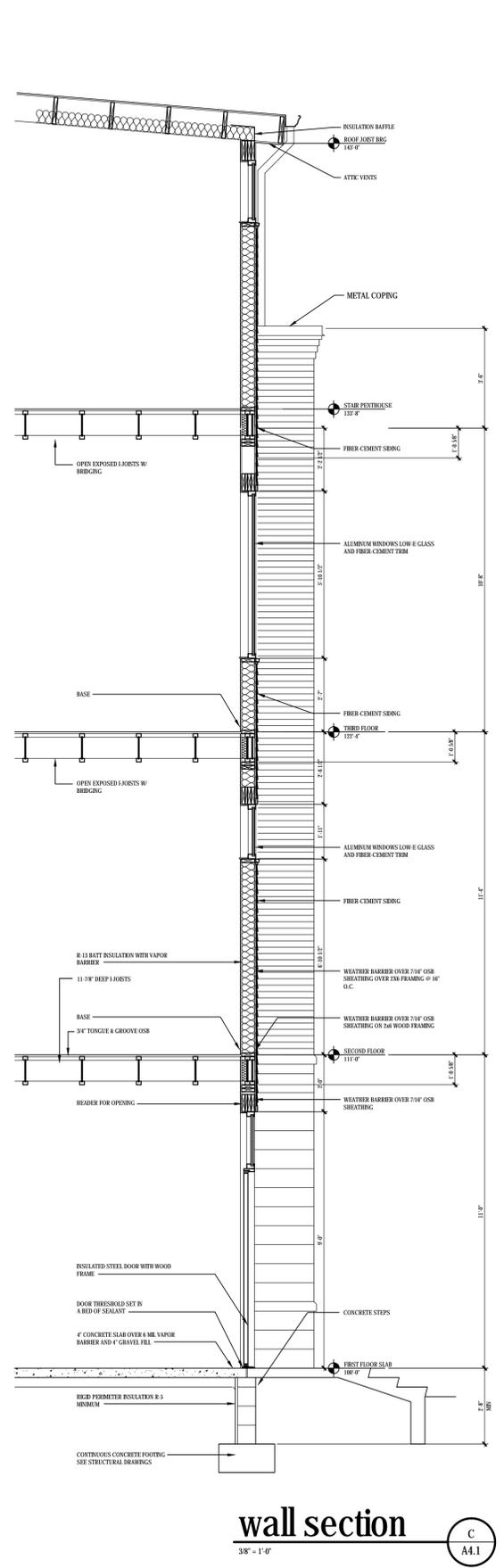
ma architects



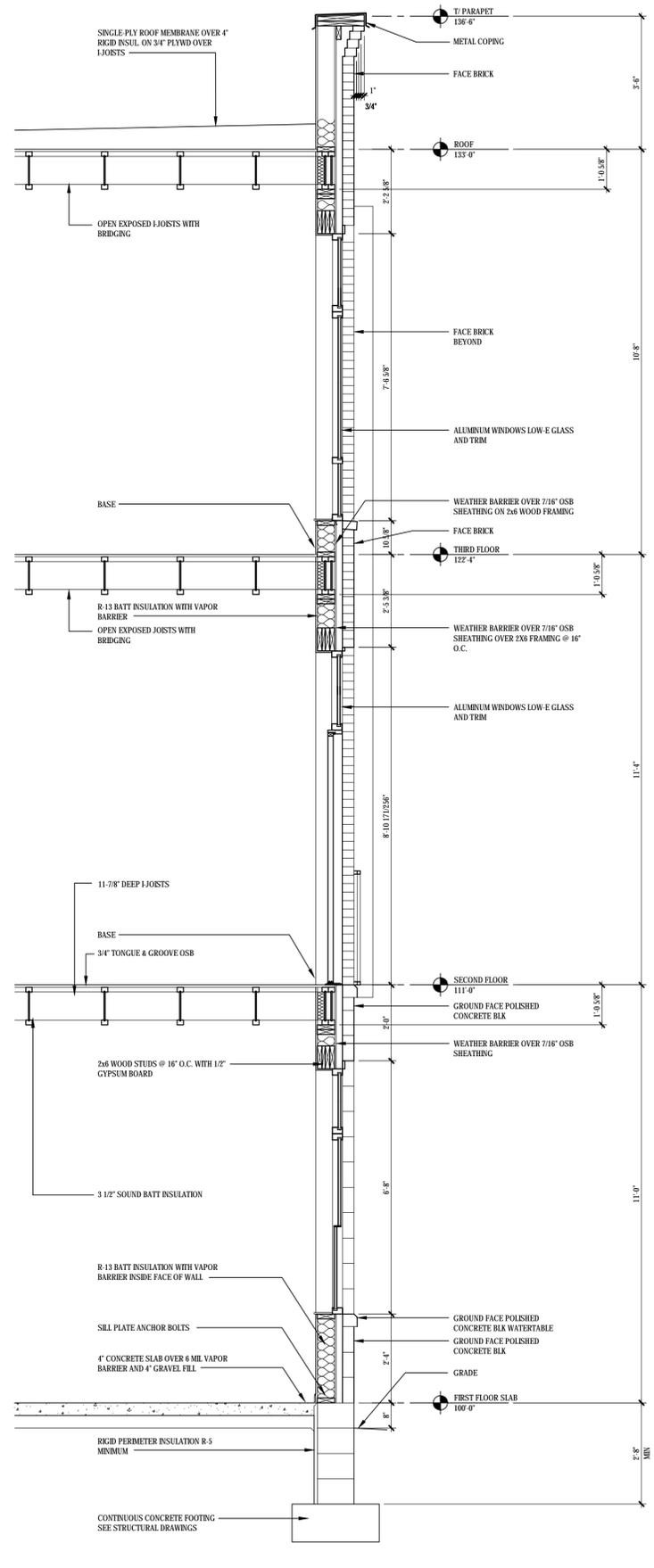
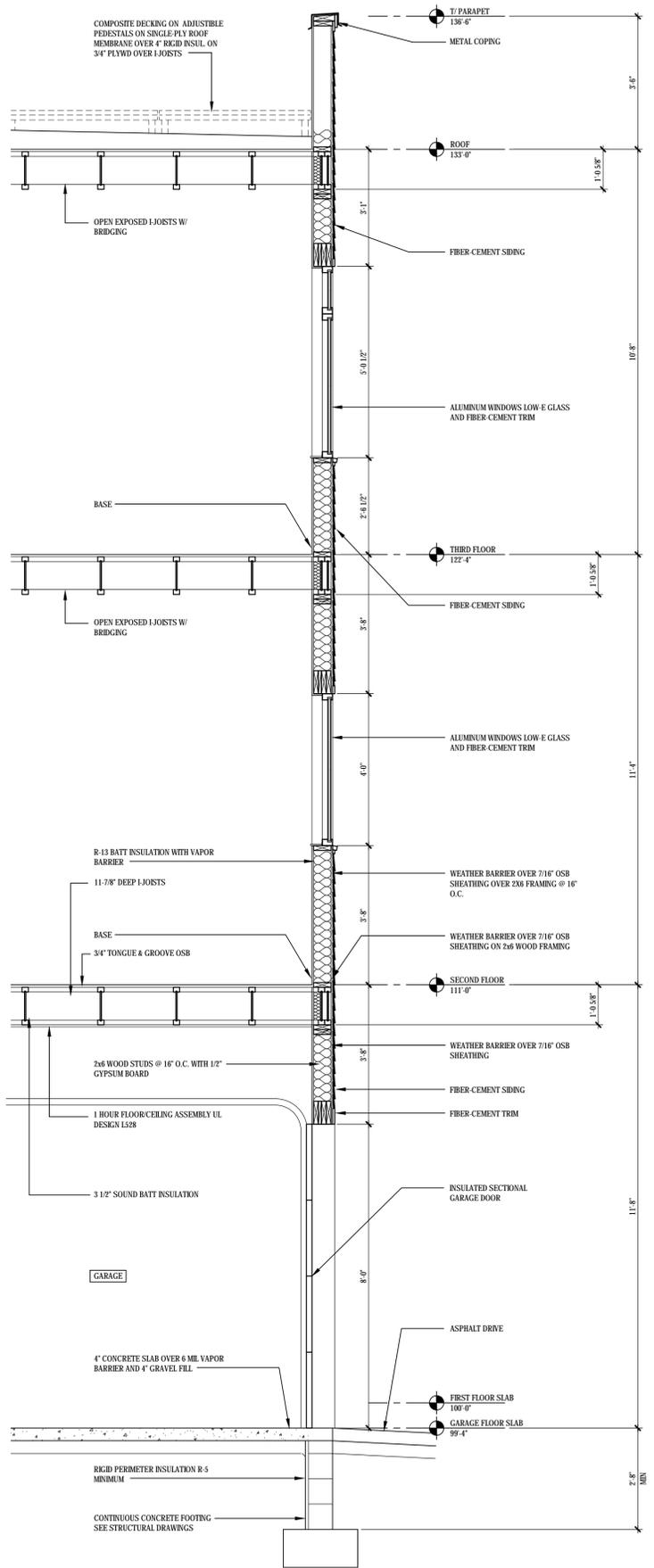
side elevation - building type B
 1/4"=1'-0"



rear elevation - building type B
 1/4"=1'-0"



wall section
3/8" = 1'-0"
C
A4.1



775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

120 McDowell Street
Columbus, Ohio 43215

Warner Junction

STATUS: [REDACTED]

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION: [REDACTED]

PROJECT NUMBER:

11049

DRAWN BY:

BRB

DATE:

05-06-2014

SHEET NUMBER:

A4.1

ma architects

moi 18 outdoor

DESCRIPTION

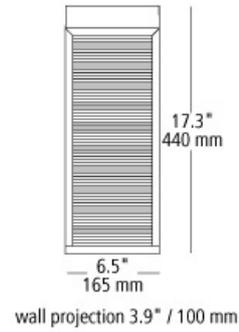
Metal frame with clear or colored transparent glass rods. Mounts down only. Includes (1) 10 watt 840 lumen 3000K 80 CRI LED module. Dimmable with a low-voltage electronic dimmer. 120v or 277v. ADA compliant.

WEIGHT

5.94lb / 2.69kg ±



clear/silver



COLOR OPTIONS



clear/silver



smoke/bronze

ORDERING INFORMATION

model	color	lamp	wet location
OD733	CRSI clear/silver	LED LED module 10w 120v	W wet location
	SMBZ smoke/bronze	LED277 LED module 10w 277v	

FIXTURE TYPE: _____

JOB NAME: _____

NOTES: _____



7400 Linder Avenue
Skokie, Illinois 60077

T 847.626.6300
F 847.626.6350

www.lblighting.com



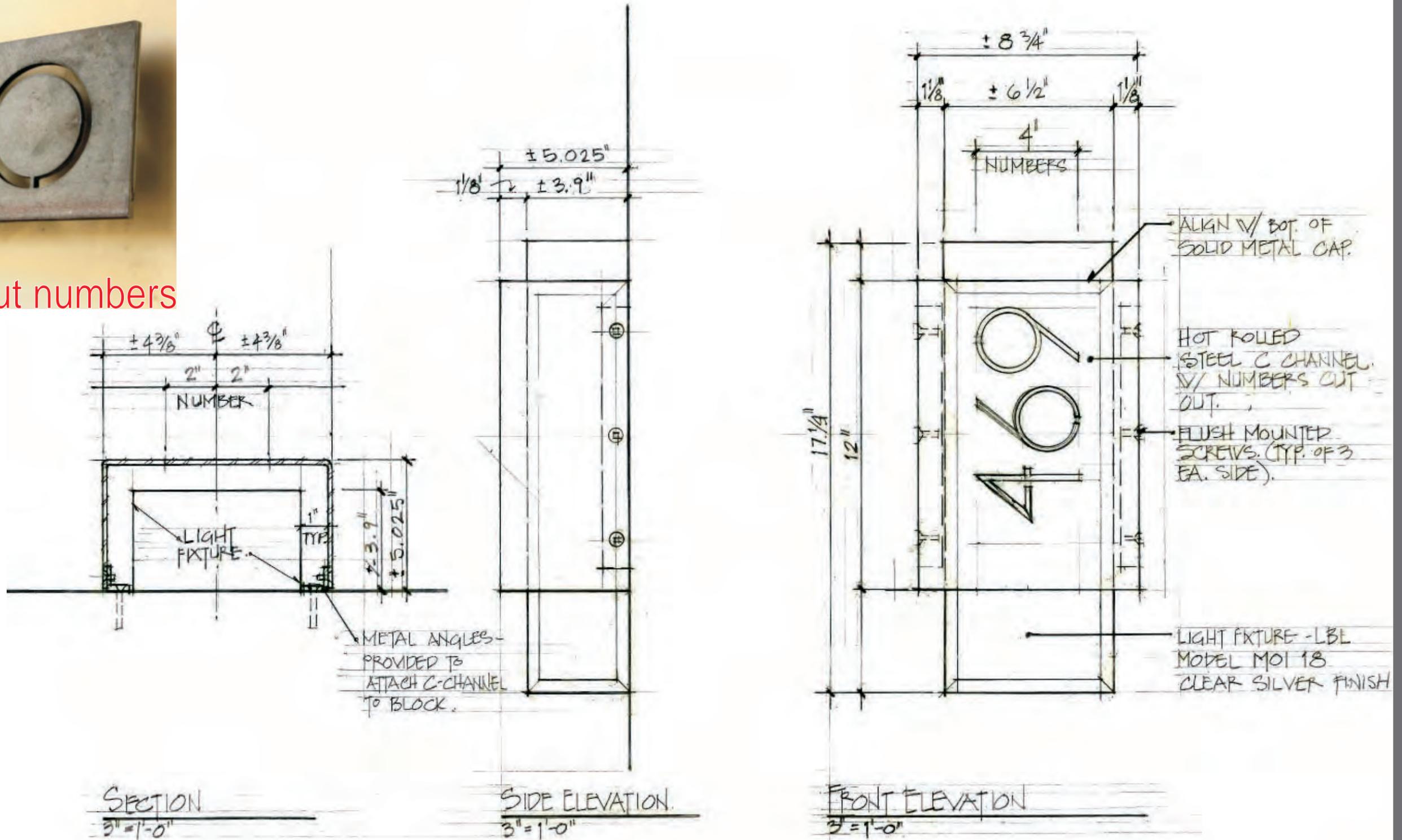
©2014 LBL Lighting. All Rights Reserved. The "LBL Lighting" graphic is a registered trademark of LBL Lighting. LBL Lighting reserves the right to change specifications for product improvements without notification.



steel plate with cut numbers



LBL MOI 18



2011.049



ma architects
ma-architects.com

WARNER JUNCTION
columbus, ohio

Entry Lights
02.26.2014

Value Series

Square LED

DME8 & DME11 LED MODULE SPECIFICATION DATA

APPLICATIONS: The DME8 & DME11 series module is designed for use with existing, remodel or new construction 4", 5", and 6" housings. The hassle-free twist and lock feature allows a single module to be adapted into various trim styles and apertures. The combination of DME modules and trims are ideal for a wide variety of low-to-medium height installations including residential, commercial, retail and hospitality spaces. Modules have been UL qualified for both IC & Non-IC applications

OPTICS: Optical Diffusing lens shields direct view of LEDs and provides more precise optical control with greater visual cut-off

THERMAL MANAGEMENT: Proprietary die-cast aluminum heat-sink conducts heat effectively away from LEDs to ensure optimum performance and lifetime. The module has been designed to efficiently transfer excessive heat through the trim and to the plenum space

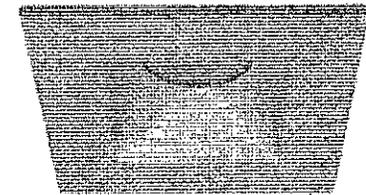
ELECTRICAL: Integral and highly efficient solid state LED driver is accessible from below ceiling plane. Luminaire accommodates input voltages of 120/277V at 60 Hz. Power factor > .90. Driver is equipped with a thermal reset in the event of over temperature or internal failure. Designed for dimming capability to 15% in normal operation with standard 120V LED-rated, electronic low voltage and Incandescent dimmers (Refer to dmflight.com for a list of DME compatible dimmers)

INSTALLATION: DME series module and trim combinations are designed for use in standard IC & Non-IC, Airtight 4", 5" and 6" housings from dmflight and other manufacturers

WARRANTY: dmflight provides a five year limited warranty on the DME module

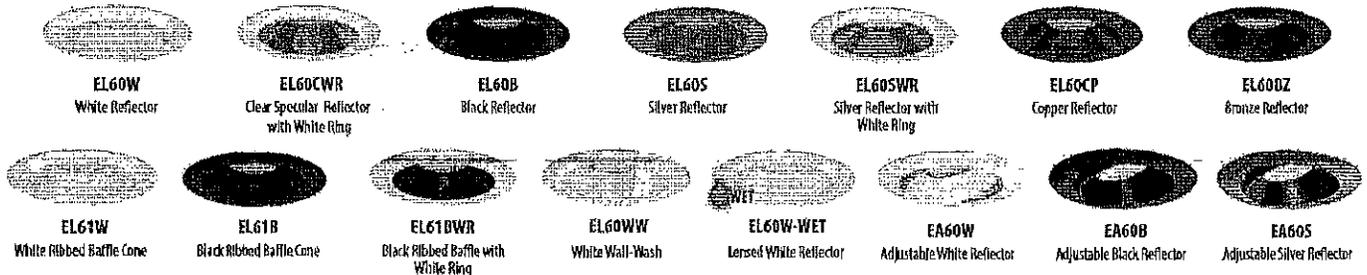
QUALIFICATIONS / LISTINGS

- cULus Listed
- Title 24 2014 high efficacy compliant
- IECC and CEC compliant
- DOE Energy Star qualified



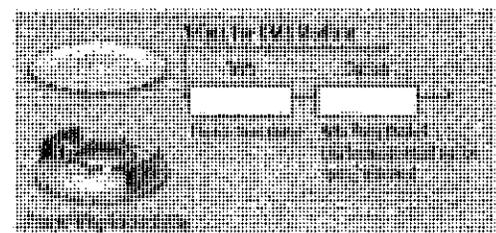
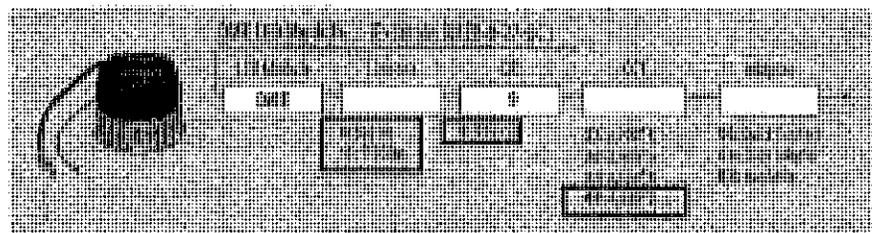
ES61W
White Ribbed
Square Baffle
Trim

6" DME MODULE TRIMS



ORDERING INFORMATION

NOTE: LED Housing, Module & Trim Sold Separately



Type: _____

Catalog #: _____

Project: _____

Date: _____



A 3 4/5" (96mm) B 2 4/5" (71mm)

SPECS AT A GLANCE:

Lumen Maintenance: 70%			Rated Life: 50,000 hrs		
Dimmable: 15%			Warranty: 5 yrs		
*Trim:	Model:	Lumens:	Efficacy:	CRI:	Watts:
4"	DME 8927	800	64 lm/w	> 93	< 12.5
5"	DME 8927	800	64 lm/w	> 93	< 12.5
5"	DME 11927	1100	62 lm/w	> 93	< 12.5

* Tested with White Trim Reflector





C20450OPLN1113BS Brick Wet Location Wall
Fixture

1Lt x 13w Type Spiral Base GU-24 2700k 900Lm

Bulb Type Spiral

Lamps Supplied yes

Finish **Glass** OPL

H 10.25 **L** 5.5 **Ext** 4

Optional Fluorescent

CUL Wet [Available in Fluorescent](#) [Customize](#) [ADA](#)



Contemporary

49908

Series: [Contemporary Exterior](#)

Type: Exterior Contemporary

Standard Features

[Available in Any Wood Species](#)

Available in Virtually Any Size

[Textured Glass Options](#)

[Try the Glass Taste Test](#)

Privacy Rating: 1

Panels: na

Moulding: na

Glass: 3/4" Insulated Glazing

Caming: na

Customer Service: 1-800-SIMPSON (746-7766)

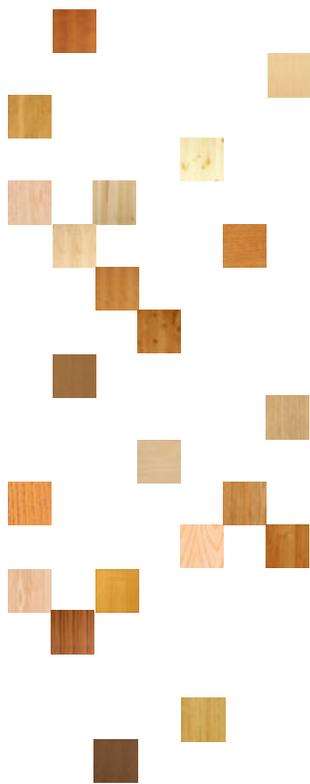
Email: SimpsonCustomerService@brandner.com

Wood Selector

One of the greatest appeals of wood is the fact that no two pieces look exactly the same. You do not have to settle with the "cookie cutter" feel offered by other uniform building materials. Grain patterns and color vary, adding texture, warmth and personality.

Simpson gives homeowners the freedom to take full advantage of this reality. We offer a broad range of species, each with its own distinctive character. Some of our popular species are shown below. If you have a more exotic type of wood in mind, please contact your Simpson dealer for details about our [custom capabilities](#).

To see how a specific species looks on a door, use the wood selector by clicking on the color chip or select a species via the drop down menu.



Douglas Fir

The Simpson name has been synonymous with fir doors since the beginning. Clean lines and warm coloring give our vertical grain Douglas Fir doors an enduring appeal.

Douglas Fir

4500/4600 Series Windows

Aluminum Projected/Fixed/Casement



Quality Windows & Doors for All Seasons



Top: Apartment 1717 Ridge Apartments in Evanston, IL

Bottom: Embassy Suites® Downtown Denver



All models AAMA rated AW

Specifically designed for commercial and architectural applications

Structural Thermal Break: Features extruded aluminum integral thermal barrier of high-density polyurethane pour and debridge for maximum strength and a low thermal conductivity. Utilizes Azo-Brader™ Technology with a 10-year pass-through warranty

(Azo-Brader™ is a trademark of Azon USA Inc.)

High Quality 1" Sealed Insulated Glass: Numerous options available including Low-E, tinted, obscure, tempered, laminated, argon-filled and spandrel

Integral Mulling/Stacking System: Provides an unlimited selection of multi-window configurations within a single master frame, such as a combination of fixed and projected units

Mulling and Sub-Frame Options: Various design elements available including self-mulling jambs. Accessories available such as interior snap trim, pre-set panning, mullions, expanders, strap anchors, face flange adaptors, head/ jamb receptors and subsills

2³/₈" Frame Depth

- Electrostatically-applied baked-on polyester standard colors meet or exceed AAMA 2603 performance standards: Bronze, White
- Available high-performance fluoropolymer colors meet or exceed AAMA 2605 standards: White (70% Kynar®), Bronze (70% Kynar®)
- Available anodic coatings meet or exceed AAMA 611 performance standards: Clear or Bronze Anodized
- Non-standard colors available subject to minimum quantity requirements

(Kynar® is a registered trademark of Arkema, Inc.)

Optional hardware packages are also available

Blast-Resistant models available, call for details



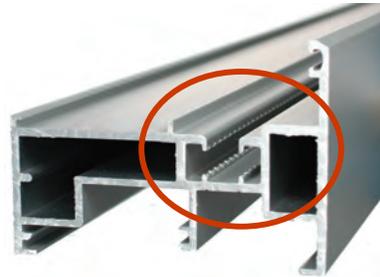
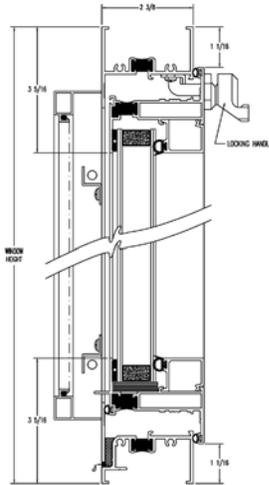
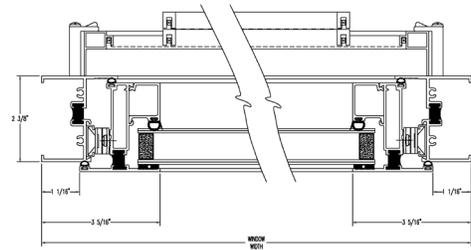
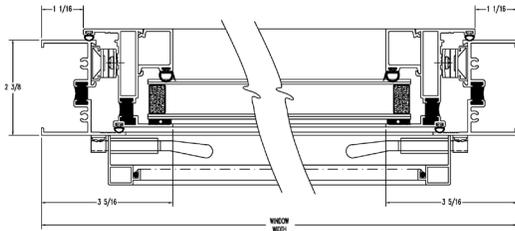
Made in the U.S.A.



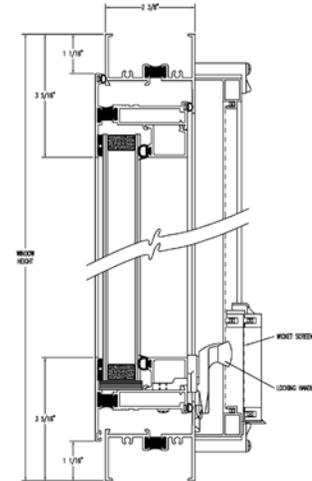
Proud Member

Series 4500 Project-In Window

Series 4600 Project-Out Window



Azo-Brader™ Technology: Abrasion “hooks” displace metal along the lugs to improve adhesion in the thermal barrier pocket.
(Azo-Brader™ is a trademark of Azon USA Inc.)



Product Performance Details (AAMA/WDMA/CSA 101/I.S.2/A440-11)

Type	Product Designation	Structural/ Water/Air Test Size (W x H)	Air Infiltration (cfm/sq ft)	Water Resistance (psf)	Deflection (psf)	Structural (psf)	U-Value ▼
4500 Fixed <i>Blast Also Available!</i>	AW-PG100	60 x 99	< 0.01 @ 6.2 psf	12	100	150	.34 ♣ .50 ♦ .54 ■
4500 Project-In Hopper	AW-PG70	60 x 36	0.08 @ 6.2 psf	12	70	105	.45 ♣ .51 ♦ .62 ■
4600 Project-Out Casement <i>Blast Also Available!</i>	AW-PG70	36 x 60	0.05 @ 6.2 psf	12	70	105	.48 ♣ .52 ♦ .63 ■
4600 Project-Out Awning <i>Blast Also Available!</i>	AW-PG65	60 x 36	0.03 @ 6.2 psf	12	65	97.5	.47 ♣ .52 ♦ .64 ■

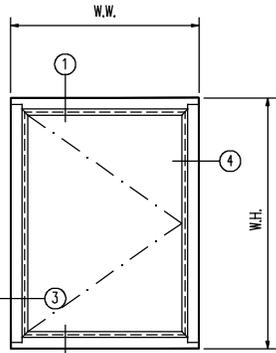
Ask about other available higher performance options (downsize test)

▼ **U-Value comparisons - example data represents three typical glass package options** (see our website for the latest updates).

Simulated window sizes based on NFRC 100, at AAMA 1503 sizes.

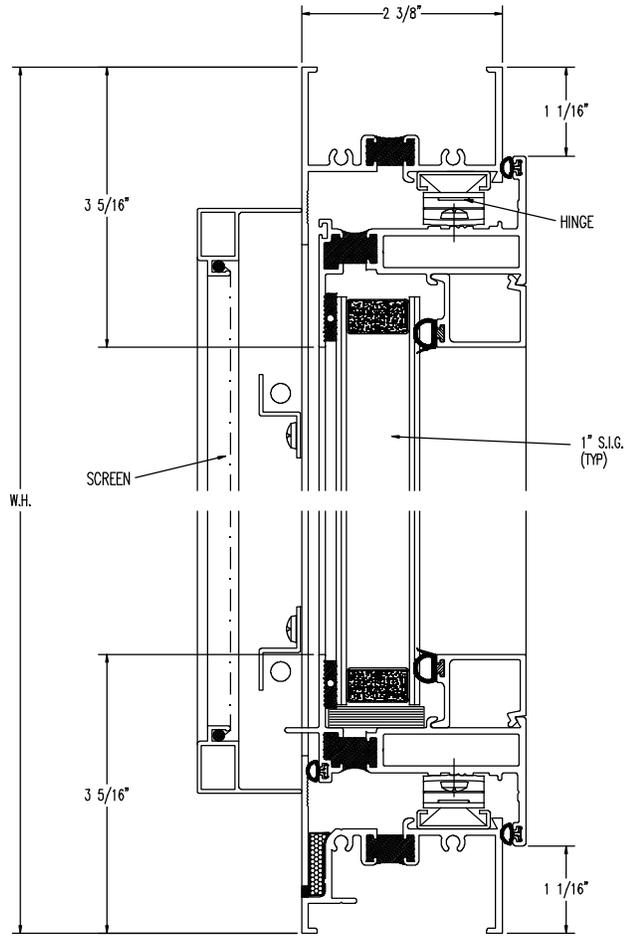
- ♣ With optional high-performance glass package.
- ♦ Air-filled IGU with Low-E over clear glass, 3/4" aluminum box spacer
- Air-filled IGU with clear over clear glass, 3/4" aluminum box spacer

(Metric U-Value conversion: coefficient = US value x 5.678263. R-Value = 1 / U-Value.)

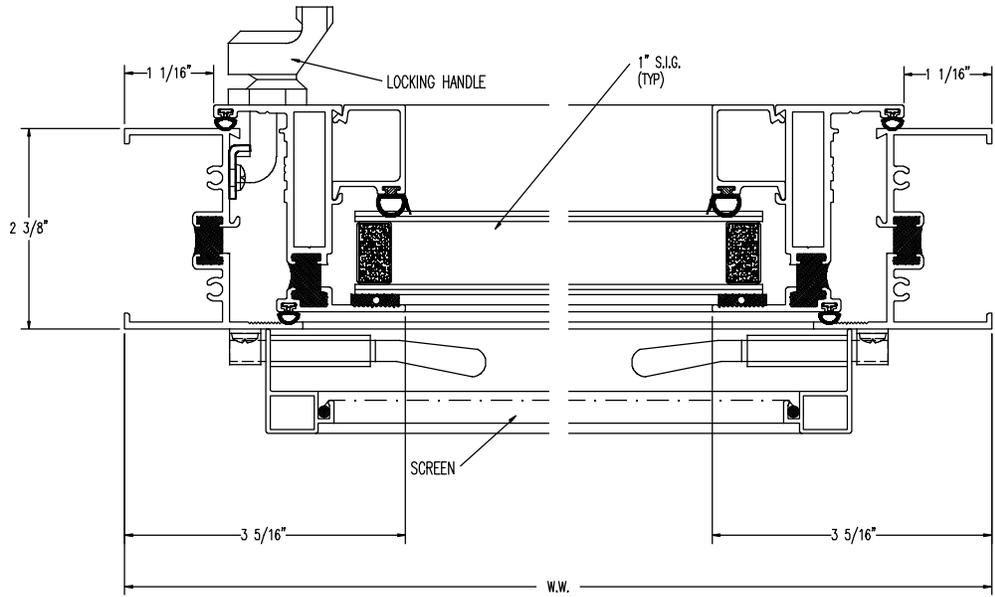


WINDOW ELEVATION
(EXTERIOR VIEW)

1 OPERATING
HEAD

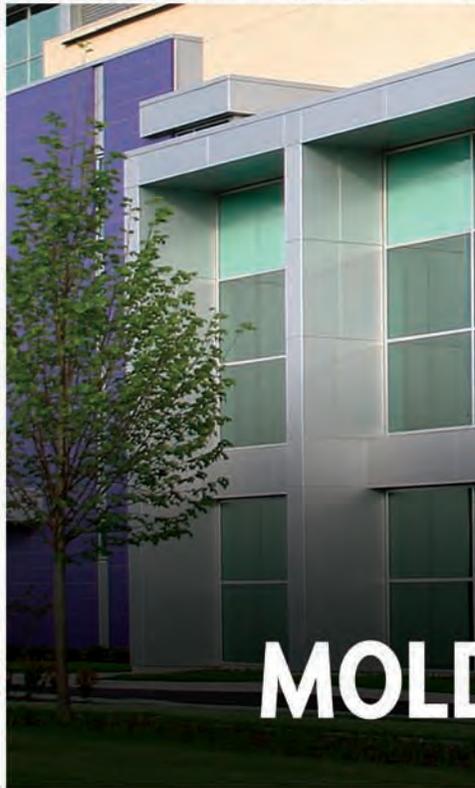


2 OPERATING
SILL



3 LOCK
JAMB

4 HINGE
JAMB



1-PIECE, TIGHT-FIT MOLDING INSTALLATION

1-Piece, Tight-Fit Molding

Laminators' 1-Piece, Tight-Fit Extruded Molding System requires no prefabrication. Panel installation is easy and economical. Moldings can either be color-matched or a contrasting color; caulk is hidden within the extrusions.

Before You Start	1
Preparing the Wall	
Installation Over Plywood Sheathing	2
Installation Over Gypsum with Water-Resistive Barrier	3
Installation Over Hat Channels or Furring Strips	4
Mounting the Panels	5 – 7
Essential Equipment and Supplies	8
Additional Accessories	Inside Back Cover

Omega-Lite Panel Maintenance

Routine cleaning:

Omega-Lite panels should be washed periodically to keep them bright. Plain water and a clean cloth are all you need to remove ordinary dirt buildup. A mild, non-abrasive household detergent with a clean-water rinse can be used for more stubborn stains. Solvents such as alcohols, mineral spirits, naphtha, turpentine, and xylene can be applied with a soft cloth. Never soak panels in solvents. You can safely use mineral spirits to remove uncured caulk and paints.

For scratches and rub-marks:

Omega-Lite touch-up paint and re-paint instructions are available from Laminators. For larger paint repairs, call Laminators for standard paints designed for aluminum surfaces available at paint stores.

Panels with Metallic Paint Finishes:

The protective masking on the face of each panel should be left in place until work is complete on any given area of an installation. However, to help ensure good color uniformity, periodically remove the masking from half of a panel (peel masking upward from the bottom of the panel) to check for color, scratches, and dents.

On panels with metallic finishes, a good color match is much more difficult to achieve. In this case, two adjoining panels should be periodically checked by removing the masking from half of two panels as the installation progresses. The masking should then be taped back over the panel to protect it.

Should any defects be found, stop work immediately and call Laminators for assistance.

When installing panels with metallic finishes, it is very important that the directional arrows on the panel masking are oriented in the same direction.

Color variation is a characteristic of aluminum composite panels with metallic paint finishes. Laminators Incorporated DOES NOT warrant a color match for these panels.

Substrate and Framing

Prior to installation, the installer **MUST** verify that the framing and substrate are in compliance with all architects' specifications.

Inspect BOTH primary and secondary wall framing to verify that all girts, angles, channels, studs and sheathing, and other structural panel support members and anchorage have been installed within the following tolerances:

1/4" in any 20' length vertically or horizontally

1/2" in any building elevation

Inspect sheathing to verify that sheathing joints are supported by framing and that installation is within flatness tolerances. These surfaces must be even, smooth, sound, clean, and dry. If the substrate or framing is not within architectural specifications, the installer must submit a written report to the General Contractor listing conditions that are detrimental to the installation of panels. Do NOT proceed with installation until unsatisfactory conditions have been corrected.

Summary of Installer Responsibility

The Panel Installer assumes total responsibility for all components of the panel installation including, but not limited to attachment to sub-construction, panel-to-panel joints, joints between panels and dissimilar material, and the joint seal associated with the panel system.

Installation Supplies & Accessories

See page 8 to be sure you are using materials that have been tested and approved by Laminators for use with Omega-Lite panels. Inventory all materials and accessories to ensure that all materials are available on-site. Call Tech Support if you need additional recommendations.

Receiving and Storage

Examination: Upon receipt of materials, perform a thorough examination to identify any damage that may have occurred during shipping. Any damage must be noted on the bill of lading at the time of receipt.

Storage: Panels are to be stored horizontally on pallets with a positive slope for drainage of water and should be covered with watertight and ventilated materials. *Standing water will damage panel finish.*

No more than 1500 pounds should be stacked on one pallet. Depending on panel size, this should be fewer than 50 panels at 30 pounds per panel and less than 2-1/2' high. Do not stack other materials on or in contact with panels to prevent staining, denting, or other damage. Storage temperature must not exceed 120°F (49°C).

Laminators' warranty does not cover water damage caused by improper storage or installation. Inspect panels on delivery, then store them on skids 8" above the ground. Place a breathable cover over them and store them in a ventilated space under roof.

If wet panels are discovered, uncrate them and dry them with towels to prevent wood rotting, paint staining, or aluminum corrosion.

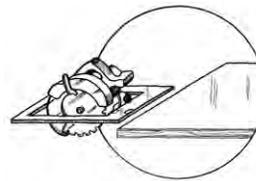
Panel Handling

Use clean work gloves to avoid hand injury from any sharp edges and to prevent smudging of the prefinished surfaces. Although panels are shipped with protective masking on both sides, always lift one panel completely off the next to prevent scratches. Do not slide one panel across another.

Protect panels from construction hazards. Good construction practice provides for panel protection and cleaning in the contract documents. Normally these are the general contractor's responsibility. Temporary protection may be required if welding, cutting, sandblasting, or other potentially damaging construction activities are scheduled nearby.

Cutting the Panels

Omega-Lite panels are designed to be cut to size on the job site. Even if the panels have been received cut to size, it may be necessary to do some minor trimming to account for areas of an elevation that may be out of square. To cut Omega-Lite panels, use a circular saw with a sharp, carbide-tipped blade (40-tooth minimum). Do not remove the protective masking from the panel face. After cutting, use a screwdriver or deburring tool (see page 8) to remove burrs or sharp edges from the panels.



**Carbide-tipped
blade (40 tooth min.)
recommended**

**Safety tip: Wear safety glasses when cutting!
Wear gloves when handling cut edges!**

Ventilation is Important

The wood or exterior gypsum board of the substrate must be protected and ventilated. Trapped moisture can cause major damage in a short time. When mounting over exterior gypsum or masonry, use steel strapping or hat channels to separate panels from the structure for good air circulation.

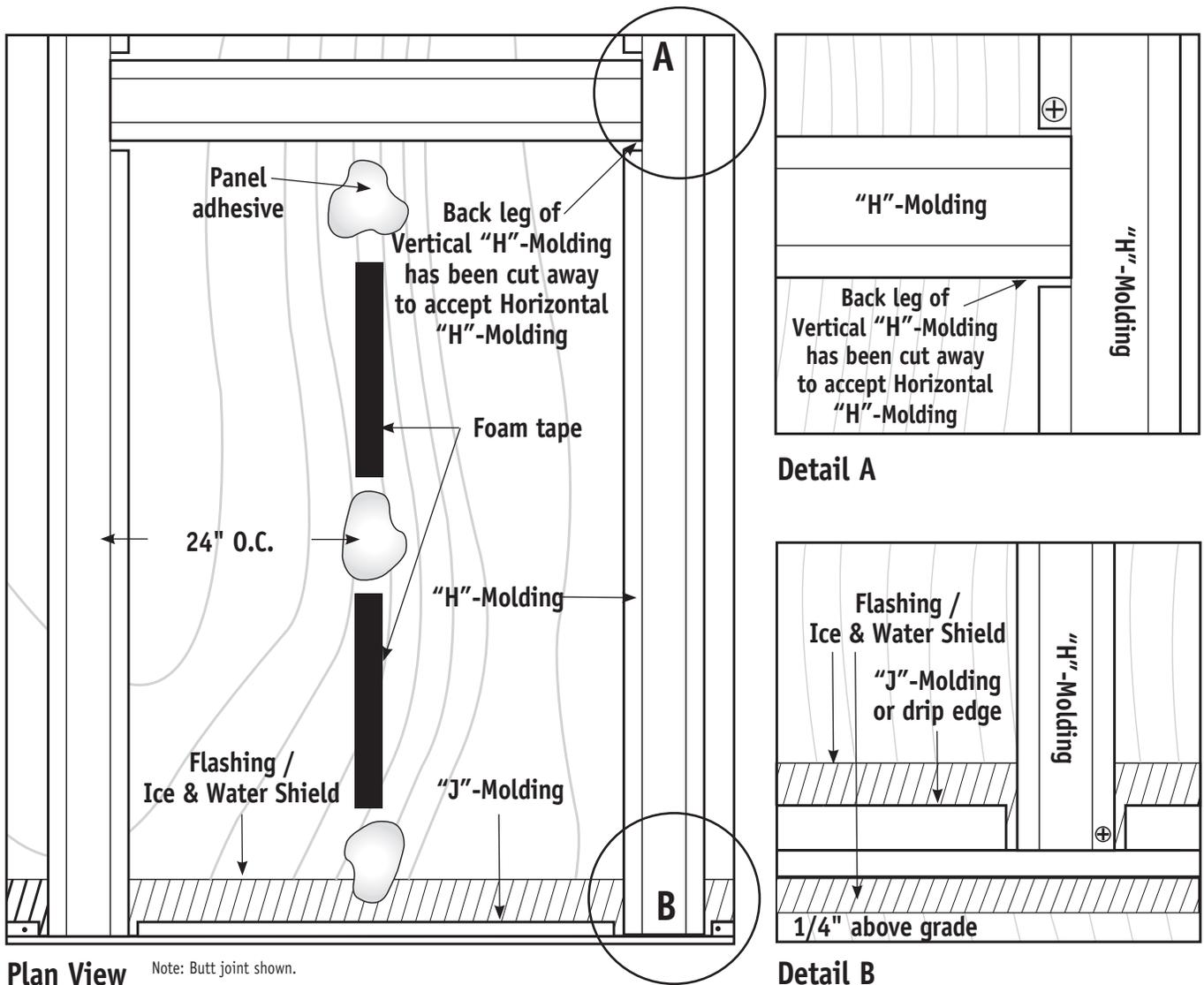
Flashing

Laminators can supply flashing materials made from aluminum sheet painted to match the adjacent panel system or surface.

Use proper flashing technique when installing flashing with panels.

Complete CAD details and product specifications can be downloaded from our website **LaminatorsInc.com**

Installation Over Plywood Sheathing



This installation process is the basis for mounting panels over a variety of substrates. You should read and understand this process before attempting to mount panels over other substrates such as plywood covered with water-resistive barrier, exterior gypsum with water-resistive barrier, etc.

In all cases, the same elements must be present:

- 1) A structural surface, such as plywood, that will hold mechanical fasteners, such as screws.
- 2) A surface that can be bonded to with panel adhesive.

If these two elements are not present, additional steps must be taken to provide them. Exterior grade gypsum, water-resistive barrier, or block walls are examples of substrates that will require additional

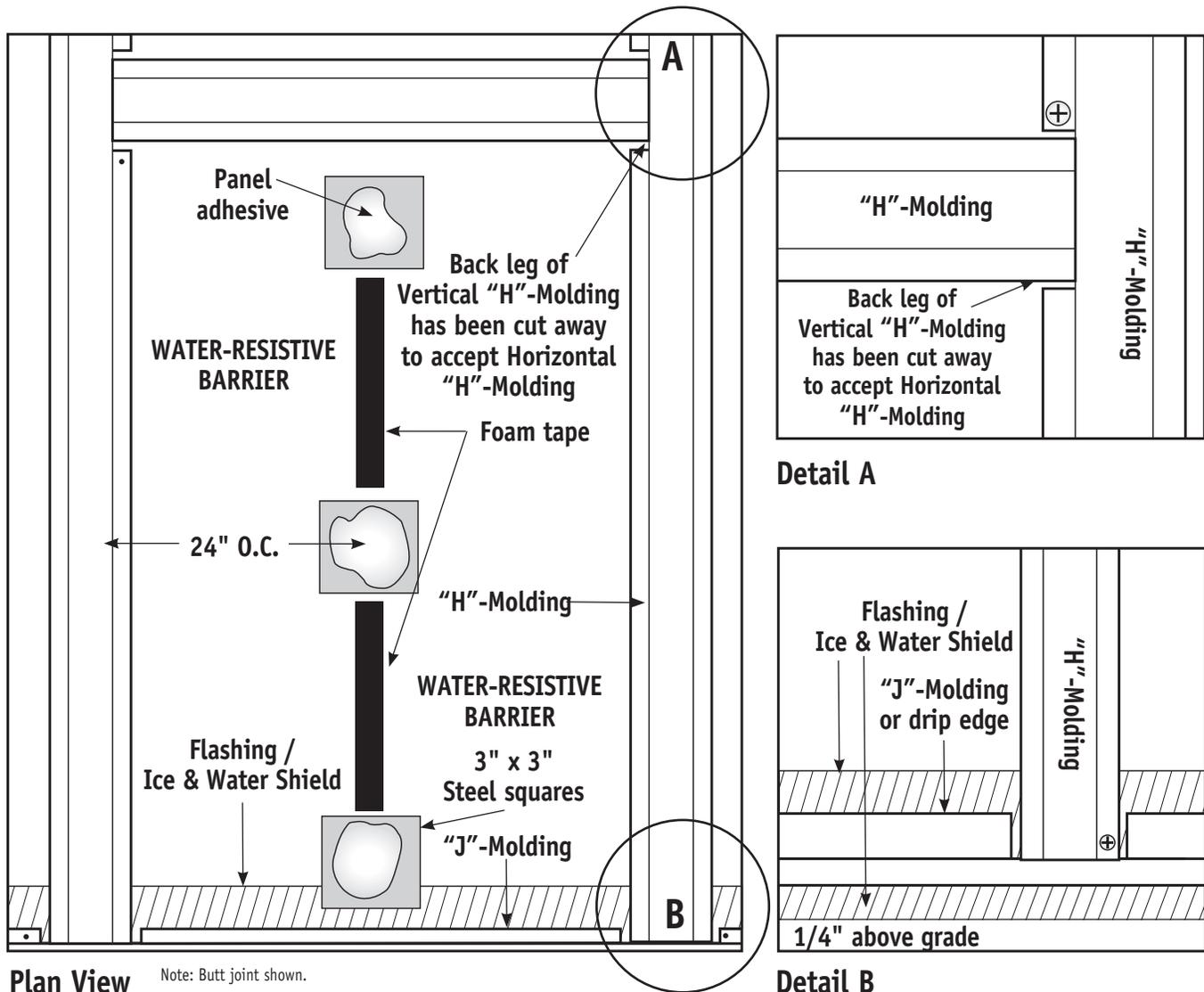
preparation before panels can be mounted. These substrates are covered in this manual.

The main drawing (upper left) depicts the layout for one panel at ground level. "J"-molding is shown: either "J"- or drip edge moldings can be used here. The detail drawings (**Detail A & B**) show close-up details from the main drawing. The instructions on page 5 explain this process and the purpose of each element shown in the above drawings. When using reveal "H"-moldings, apply color-matched caulk where the horizontal and vertical joints meet.

Note: To guard against water penetration, Laminators recommends that all these installation systems include a water-resistive barrier (appropriate for the climate and wall construction) installed on the substrate behind the metal wall panels.

Follow installation instructions as shown on page 5.

Installation Over Gypsum with Water-Resistive Barrier



When installing panels over exterior grade gypsum, with water-resistive barrier, remember that neither exterior grade gypsum nor water-resistive barrier are structural.

For proper installation, 18 or 20 gauge steel squares must be used to create a surface that will accept panel adhesive.

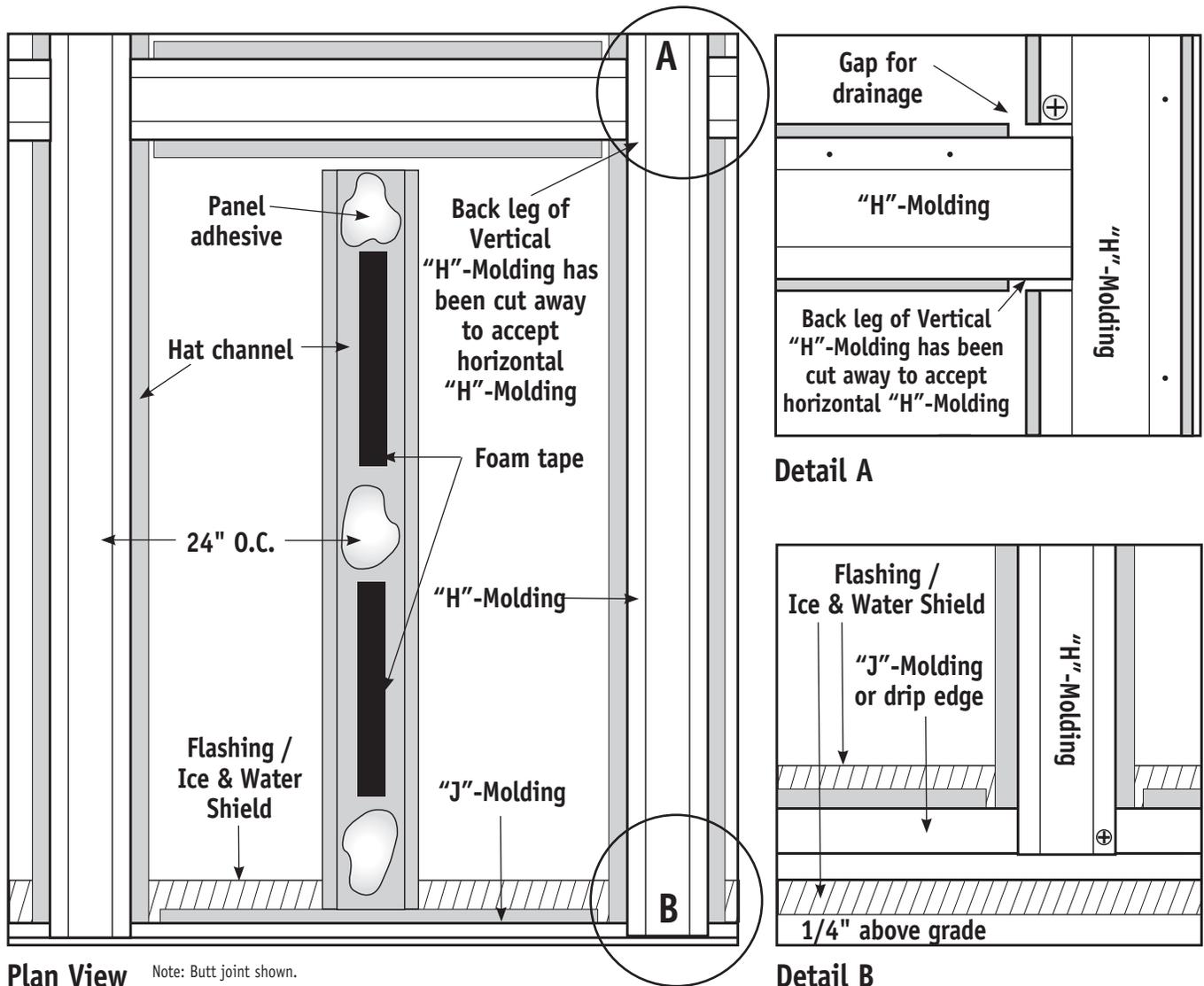
All steel squares must be attached with low-profile, pan head screws at all four corners. These screws must pass through the steel squares, the exterior grade gypsum, and attach to the stud wall. Moldings must be attached through the gypsum to the studs.

If moldings do not fall on top of steel stud, steel strapping must be installed behind the extrusion. Strapping must be attached to the studs.

The main drawing (*upper left*) depicts the layout for one panel at ground level. "J"-molding is shown: either "J"- or drip edge moldings can be used here. The detail drawings (**Detail A & B**) show close-up details from the main drawing. The instructions on page 5 explain this process and the purpose of each element shown in the above drawings. When using reveal "H"-moldings, apply color-matched caulk where the horizontal and vertical joints meet.

Follow installation instructions as shown on page 5.

Installation Over Hat Channels or Furring Strips



Again, the drawing above depicts the layout for one panel at ground level. As with previous substrates, "J"-molding is shown at ground level. Either "J"-molding or drip edge moldings can be used here.

Hat channels are used for installing panels over surfaces such as brick or masonry that, while structural, cannot directly accept the Tight-Fit Molding System. Hat channels can also be used to create additional depth behind the panels if required. Hat channels should be 3" wide across the face and a minimum of 1/2" in depth.

The main drawing (*upper left*) depicts the layout for one panel at ground level. "J"-molding is shown: either "J"- or drip edge moldings can be used here. The detail drawings (**Detail A & B**) show close-up details from the main drawing. The instructions on page 5 explain this process and the purpose of each element shown in the above drawings. When using reveal "H"-moldings, apply color-matched caulk where the horizontal and vertical joints meet.

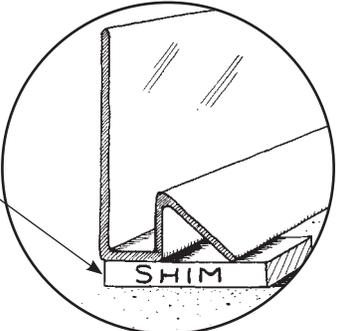
Installing the Moldings

Set up a clean worktable

Using available materials (straight 2x4s, 3/4" flat sound plywood with smooth surface, or MDF plywood for precision work) construct a worktable at least 48" x 96" and at a comfortable working height. Place a strip of 2" masking tape along the short edge of the worktable. This will enable you to clean any excess caulk off the tabletop. To keep the panel from moving, drive two stop-screws into the tabletop at the end opposite the masking tape.



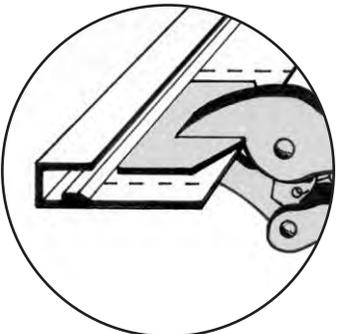
1/8" minimum



Step 1: Attach bottom molding to substrate

Snap a level line at 1/4" above ground level (or more) as determined by site supervision. Keeping the molding 1/4" above ground level, use galvanized drywall screws to attach the molding to the substrate. Fasten one screw per hat channel or furring strip on verticals, and one screw every 16" to 24" O.C. on horizontals. Ice and water shield is recommended to prevent water from getting to the wall at ground level. This is shown in **Detail B** on page 2 and 3.

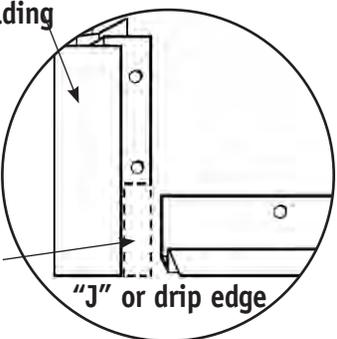
See manufacturer's instructions for the proper use of ice and water shield.



Step 2: Cut away intersecting molding

The dotted line shown in the drawing indicates an area where two moldings will intersect. This area must be cut away so that after installation, moldings will sit on the same plane. An area approximately 4" should be adequate for the entire intersection. Use tin snips to cut the area to be removed. You may score the back of the "J"-molding at the bottom to keep extra flush against plywood. Using sheet metal pliers (duck-bill vice grips), bend the material up and down until the piece snaps off.

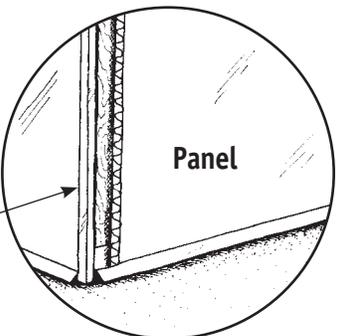
"H"-Molding



Piece cut away from the corner

Step 3: Attach vertical molding

Screw moldings down as close to intersections as possible to ensure that everything sits flat. Countersink galvanized drywall screws.



Vertical molding

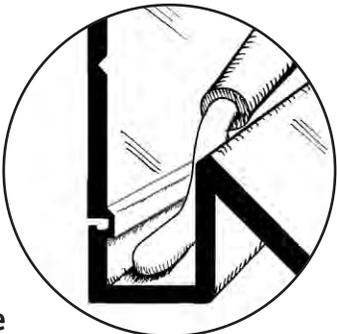
Step 4: Cut the first panel to size

Measure and cut the first panel to size. Deduct 1/8" from the panel size to allow for expansion and contraction. Dry fit the panel to make sure it fits properly.



Step 5: Remove panel masking

Remove the masking from the back of the panel. Pull the masking back about 6" from all edges in the front of the panel but do NOT remove it completely.



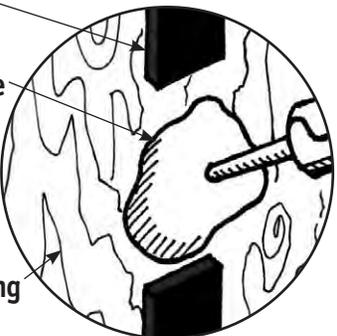
Step 6: Apply Foam Tape

Apply foam tape to the substrate as instructed on pages 2 through 4. This will help to prevent panel "suck in" when the adhesive cures.

Step 7: Apply caulk to moldings

Using a Laminators-approved silicone caulk, run enough caulk into the moldings so it will seal the edges when the panel is inserted. Use a 1/4" diameter (approx.) bead and be sure that there are no skips in the caulk. Fill the corner molding with caulk. Caulk molding one panel at a time.

Foam tape

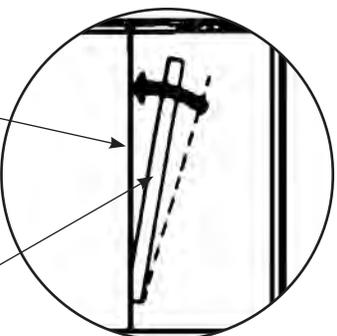


Step 8: Apply panel adhesive

Apply beads of Laminators-approved panel adhesive (See list on page 8) to the furring strips, sheathing, steel squares or hat channels as appropriate, using generous 3" wide dabs staggered every 16" O.C. The adhesive should go between the strips of foam tape and must make contact with back of panel. Refer to panel adhesive and caulk manufacturers' working times before applying to ensure proper adhesion.

Panel adhesive

Sheathing



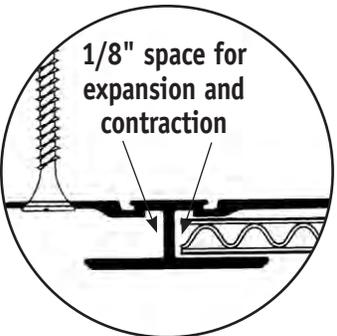
Step 9: Install first panel

Slide the panel sideways into the pre-caulked outside corner or edge molding. If necessary, use wide blade putty knives to fit the panel into the vertical molding. Measure to be sure the panel is completely inserted into the molding.

If necessary, nudge the panel into place using a 2x6 as shown and tap it with a hammer to prevent damage to the panel edge.

Panel edge

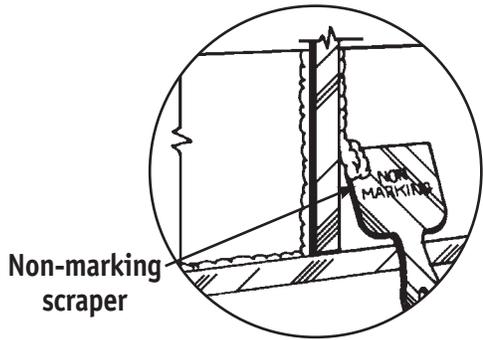
2x6



Step 10: Install top molding

If molding is required at the top of the first row of panels, leave 1/8" space for expansion and contraction. Fill the molding with caulk to seal the panels and attach it along the top edge of the panel. The shims provide space for panel expansion caused by weather changes or direct sunlight.

1/8" space for expansion and contraction



Step 11: Install next molding

Take the next vertical molding piece, caulk the short leg, and fasten the long leg of the “H” or reveal molding using recommended fasteners.

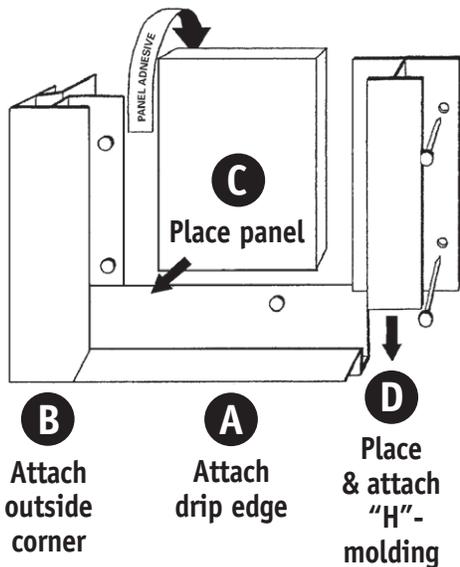
Step 12: Continue panel installation

Remove excess caulk with a non-marking plastic scraper. Mineral spirits and a clean rag should be used to remove any residue that the scraper missed.

Continue installing panels until the job is completed. Cover the top of the panels with a temporary tarp to keep water out if a parapet or flashing detail is to be installed at a later date. Remove masking from the front of the panels.

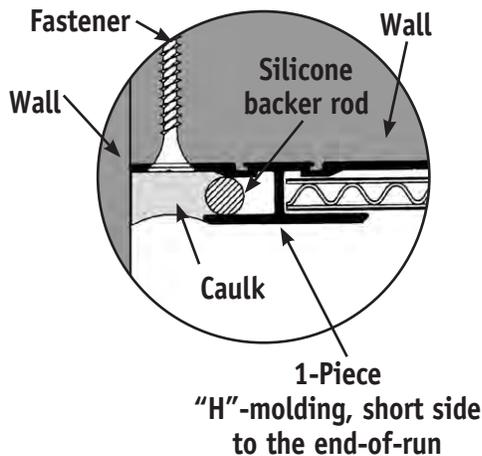
Caution: All the masking must be removed within 2 weeks, otherwise it may affect the appearance of the panel and may be difficult to remove.

Note: Remember to remove any shims from under the bottom molding when installation is completed.



Installation summary:

- A. Attach drip edge moldings fastened every 12" with recommended fasteners.
- B. Attach outside corner molding making sure to notch the back of the corner molding to allow the drip-edge to lie flush against the wall.
- C. Install panel. Be sure masking has been removed from back of the panel.
- D. Place and attach “H”-molding.



End-of-run detail

For 1-Piece, Tight-Fit moldings, fill an “H”-molding with caulk. Attach it to the final edge, then install the final panel to complete the run.

- Work table or saw horses and 3/4" particle board to create work table
- Aluminum brake capable of bending 0.032" aluminum
- Porter-Cable 3 HP router with guide or equivalent able to accept a 1/2" carbide shank
- Laminators' router bit (Part #RB 1/2)
 - Custom designed router bit only available from Laminators Inc. that forces bending into the middle of the groove and eliminates core show-through. Carbide with 1/2" shank.
- Miter saw or chop saw with 10" diameter blade
- Circular saw with 7-1/4", 40-tooth blade (min.)
- Jigsaw with 24-tooth, sheet metal cutting blade
- Caulking gun
- Screw gun
- Long 1/8" drill bit with drill bit plastic guard tubing
- Deburring tool (Part #DEBURRING TOOL)
- Aviation snips or heavy-duty scissors
- Plastic putty tool or scraper to remove excess caulk and adhesive from panels
- Metal single cut rectangular file with medium teeth
- Utility knife
- Tape measure
- Safety glasses
- Gloves to handle panels

ESSENTIAL SUPPLIES

- Panels
- Moldings/extrusions as needed
 - "J" extrusion for drip edge (required) and end of run option (optional)
 - "H" extrusion for end of run option (optional)
 - snap-in extrusions (required)
- Color-matched flat stock
- Strapping
 - 0.40" aluminum or 20 ga. galvanized exterior sheet metal strips 3" x 8', 10', or 12'
- Furring strips or studs as needed
- Insulation, 3/4" foam to go between furring strips
- Ice & water shield or flashing
- Gaska Tape® V710, 3/16" x 2" or equivalent closed cell 7 lb. density polyvinyl chloride foam tape (Laminators Part #12847)
- Silicone Caulk—The following caulks have been tested and meet requirements. Color-matched caulk available from Laminators Inc.
 - Tremco Spectrem® 1
 - Dow Corning® 790, 983, 795, 995, 756, 791
 - GE SilGlaze® II, SilPruf®
 - Pecora 860, 896, 895, 890NST
- Panel Adhesive—The following adhesives have been tested and meet requirements. Various adhesives available from Laminators Inc.
 - Titebond® Heavy-Duty Construction Adhesive or Premium Polyurethane Construction Adhesive
 - Liquid Nails® 602 Subfloor (LN-602), 950 Polyurethane (LN-950), 902 for Subfloor (LN-902), or 901 for Heavy Construction (LN-901)
 - DAP 4000 Subfloor Adhesive
 - OSI Sealants PL400
- Screws
 - #6 x 1-1/4" bugle-head drywall or #8 or #10 x 1" Phillips Pan Head for securing clips into sheathing
 - #8 or #10 x 3/4" or longer, TEKS/3 screws to secure clips into steel studs
 - #6 x 1/2" and #6 x 1" Phillips Pan Head, TEKS/2 screws for mounting moldings to plywood or metal
- Wood shims to assist with spacing between panels
- Mineral spirits and rags to clean caulk from panels if necessary
- Touch-up paint

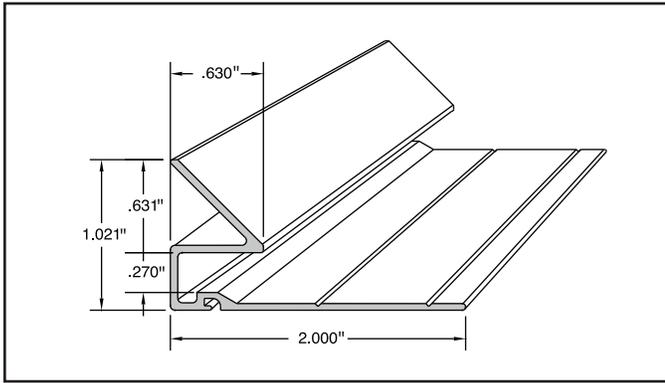
Note: Trademarks are registered by the companies noted.

How Much Will I Need?

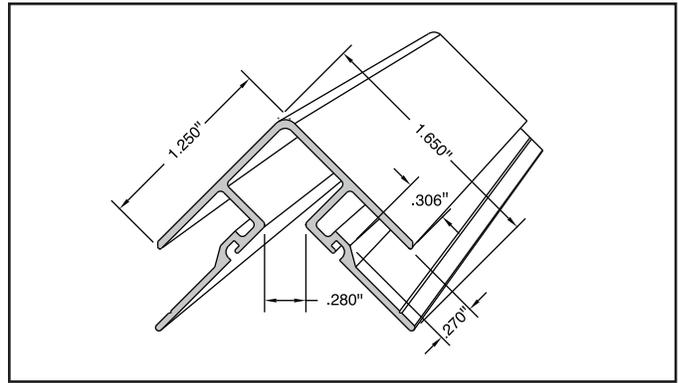
For every 100 sq. ft. of Omega-Lite panels you will need:

- 3 tubes 11 oz. silicone caulk
- 1 tube 28 oz. panel adhesive
- 1 roll 2" x 50' closed cell PVC foam tape

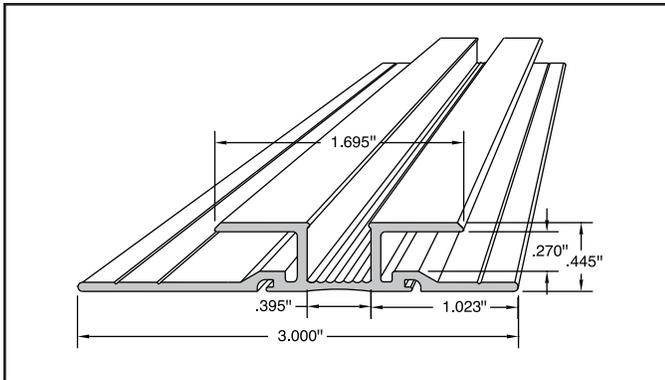
1-Piece, Tight-Fit Molding...for use with Omega-Lite panels



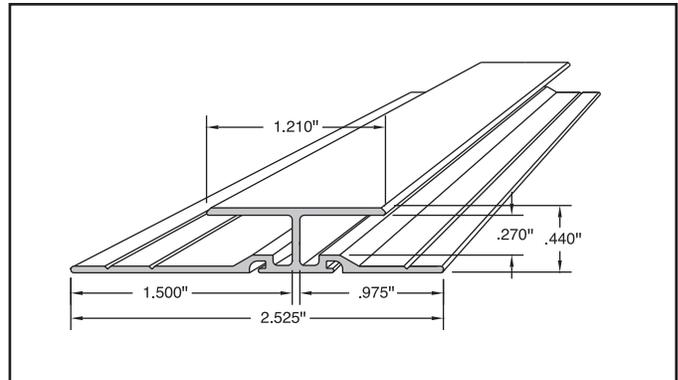
Item 4525X: Inside Corner (Drip Cap)



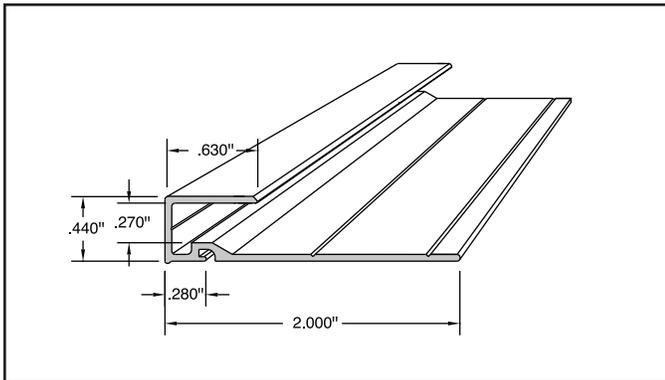
Item 4535X: Adjustable (Bendable) Outside Corner



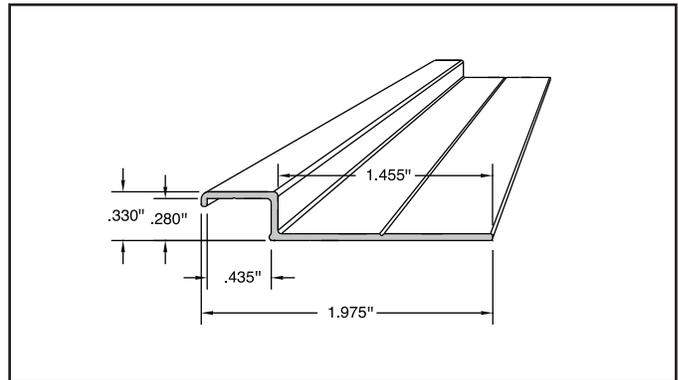
Item 4595X: Reveal "H"-Molding



Item 4505X: "H"-Molding

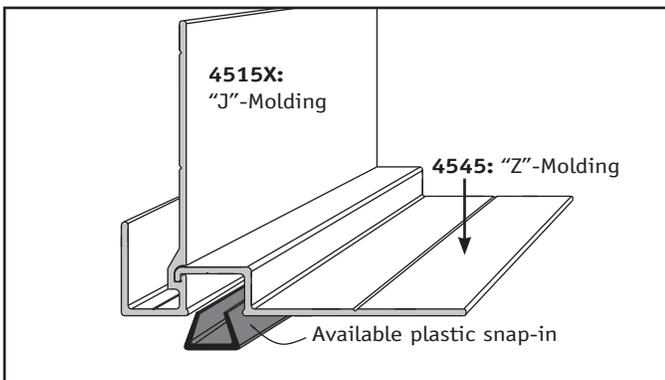


Item 4515X: "J"-Molding

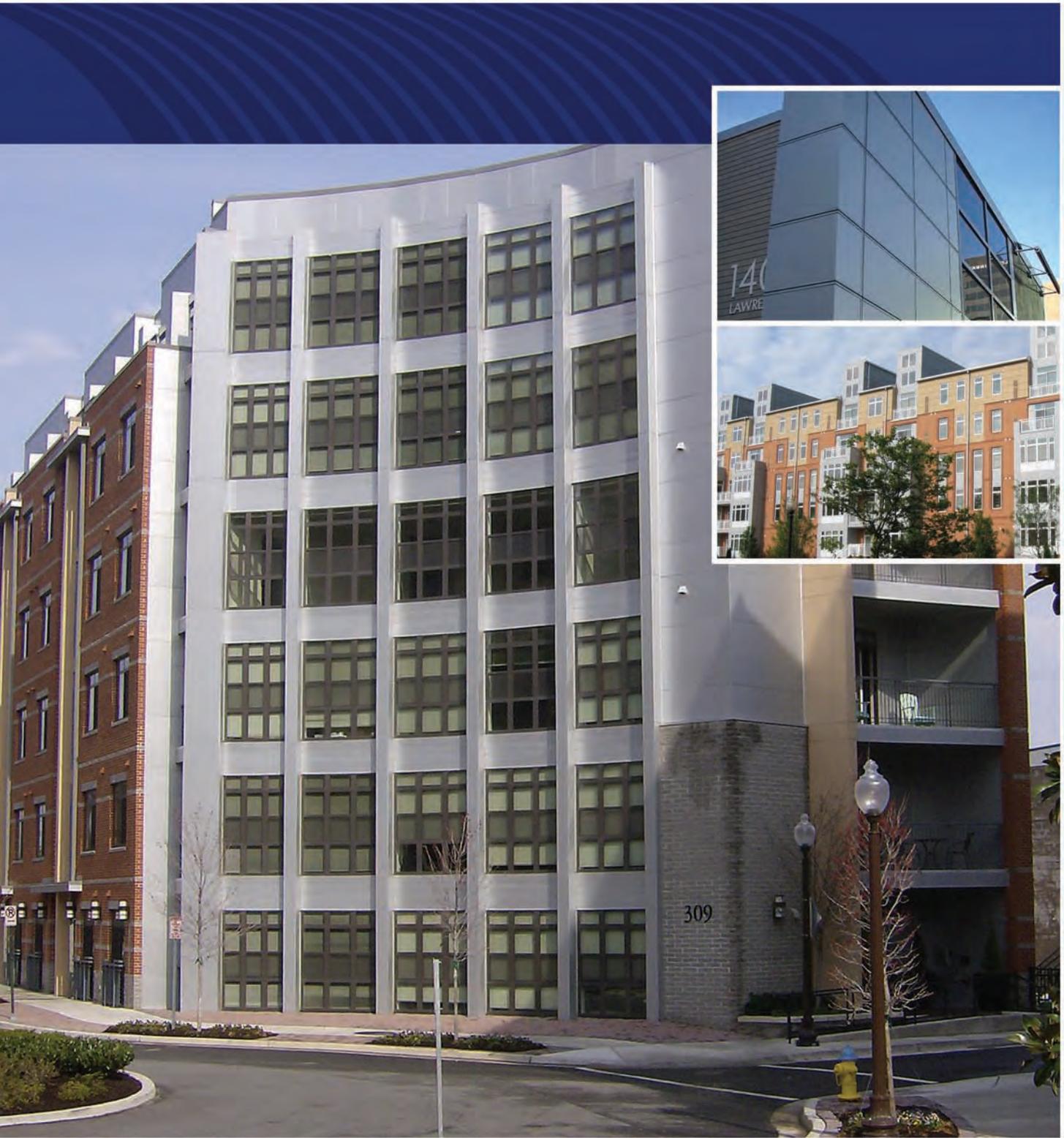


Item 4545: "Z"-Molding

The letter "X" identifies the molding color.



Fascia Soffit or Outside Corner ("J"-Molding & "Z"-Molding combined with plastic snap-in molding)





ROUT & RETURN INSTALLATION

Rout & Return

Prefabricated panels can be panned on-site using standard carpentry tools to provide a solid, distinctive finish at a much lower cost.

Before You Start	1
Installation Instructions	
Preparation	2
Rout & Return	3 – 5
Turning the Corner	6
Essential Equipment and Supplies	7
Panel Maintenance	9

Panels with Metallic Paint Finishes:

The protective masking on the face of each panel should be left in place until work is complete on any given area of an installation. However, to help ensure good color uniformity, periodically remove the masking from half of a panel (peel masking upward from the bottom of the panel) to check for color, scratches, and dents.

On panels with metallic finishes, a good color match is much more difficult to achieve. In this case, two adjoining panels should be periodically checked by removing the masking from half of two panels as the installation progresses. The masking should then be taped back over the panel to protect it.

Should any defects be found, stop work immediately and call Laminators for assistance.

When installing panels with metallic finishes, it is very important that the directional arrows on the panel masking are oriented in the same direction.

Color variation is a characteristic of Aluminum composite panels with metallic paint finishes. Laminators Incorporated DOES NOT warrant a color match for these panels.

Substrate and Framing

Prior to installation, the installer MUST verify that the framing and substrate are in compliance with all architects' specifications.

Inspect BOTH primary and secondary wall framing to verify that all girts, angles, channels, studs and sheathing and other structural panel support members and anchorage have been installed within the following tolerances:

1/4" in any 20' length vertically or horizontally

1/2" in any building elevation

Inspect sheathing to verify that sheathing joints are supported by framing and that installation is within flatness tolerances. These surfaces must be even, smooth, sound, clean and dry. If the substrate or framing is not within architectural specifications, the installer must submit a written report to the General Contractor listing conditions that are detrimental to the installation of panels. Do NOT proceed with installation until unsatisfactory conditions have been corrected.

Summary of Installer Responsibility

The Panel Installer assumes total responsibility for all components of the panel installation including, but not limited to attachment to sub-construction, panel-to-panel joints, joints between panels and dissimilar material, and the joint seal associated with the panel system.

Installation Supplies & Accessories

See page 7 to be sure you are using materials that have been tested and approved by Laminators for use with Omega-Lite panels. Inventory all materials and accessories to ensure that all materials are available on-site. Call Tech Support if you need additional recommendations.

Receiving and Storage

Examination: Upon receipt of materials, perform a thorough examination to identify any damage that may have occurred during shipping. Any damage must be noted on the bill of lading at the time of receipt.

Storage: Panels are to be stored horizontally on pallets with a positive slope for drainage of water and should be covered with watertight and ventilated materials. *Standing water will damage panel finish.*

No more than 1500 pounds should be stacked on one pallet. Depending on panel size, this should be fewer than 50 panels at 30 pounds per panel and less than 2-1/2' high. Do not stack other materials on or in contact with panels to prevent staining, denting, or other damage. Storage temperature must not exceed 120°F (49°C).

Laminators' warranty does not cover water damage caused by improper storage or installation. Inspect panels on delivery, then store them on skids 8" above the ground. Place a breathable cover over them and store them in a ventilated space under roof.

If wet panels are discovered, uncrate them and dry them with towels to prevent wood rotting, paint attaining or aluminum corrosion.

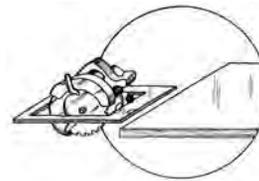
Panel Handling

Use clean work gloves to avoid hand injury from any sharp edges and to prevent smudging of the prefinished surfaces. Although panels are shipped with protective masking on both sides, always lift one panel completely off the next to prevent scratches. Do not slide one panel across another.

Protect panels from construction hazards. Good construction practice provides for panel protection and cleaning in the contract documents. Normally these are the general contractor's responsibility. Temporary protection may be required if welding, cutting, sandblasting, or other potentially damaging construction activities are scheduled nearby.

Cutting the Panels

Omega-Lite panels are designed to be cut to size on the job site. Even if the panels have been received cut to size, it may be necessary to do some minor trimming to account for areas of an elevation that may be out of square. To cut Omega-Lite panels, use a circular saw with a sharp, carbide-tipped blade (40-tooth minimum). Do not remove the protective masking from the panel face. After cutting, use a screwdriver or deburring tool (see page 7) to remove burrs or sharp edges from the panels.



**Carbide-tipped
blade (40 tooth min.)
recommended**

**Safety tip: Wear safety glasses when cutting!
Wear gloves when handling cut edges!**

Ventilation is Important

The wood or exterior gypsum board of the substrate must be protected and ventilated. Trapped moisture can cause major damage in a short time. When mounting over exterior gypsum or masonry, use steel strapping or hat channels to separate panels from the structure for good air circulation.

Flashing

Laminators can supply flashing materials made from aluminum sheet painted to match the adjacent panel system or surface.

Use proper flashing technique when installing flashing with panels.

Complete CAD details and product specifications can be downloaded from our website **LaminatorsInc.com**

This system is a folded-edge panel mounting system, called "Rout and Return." Using this system, panels can be fabricated on-site, or in a fabricating shop and then installed on the building. The installation gives self-supporting panels made into return edge pans, that traditionally give a 1-1/4" deep reveal that is caulked flush. The system can be installed with small, inexpensive clips located strategically and wet sealed.

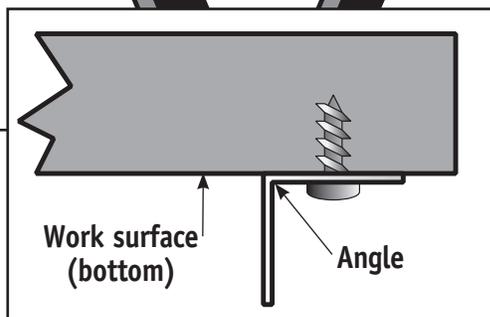
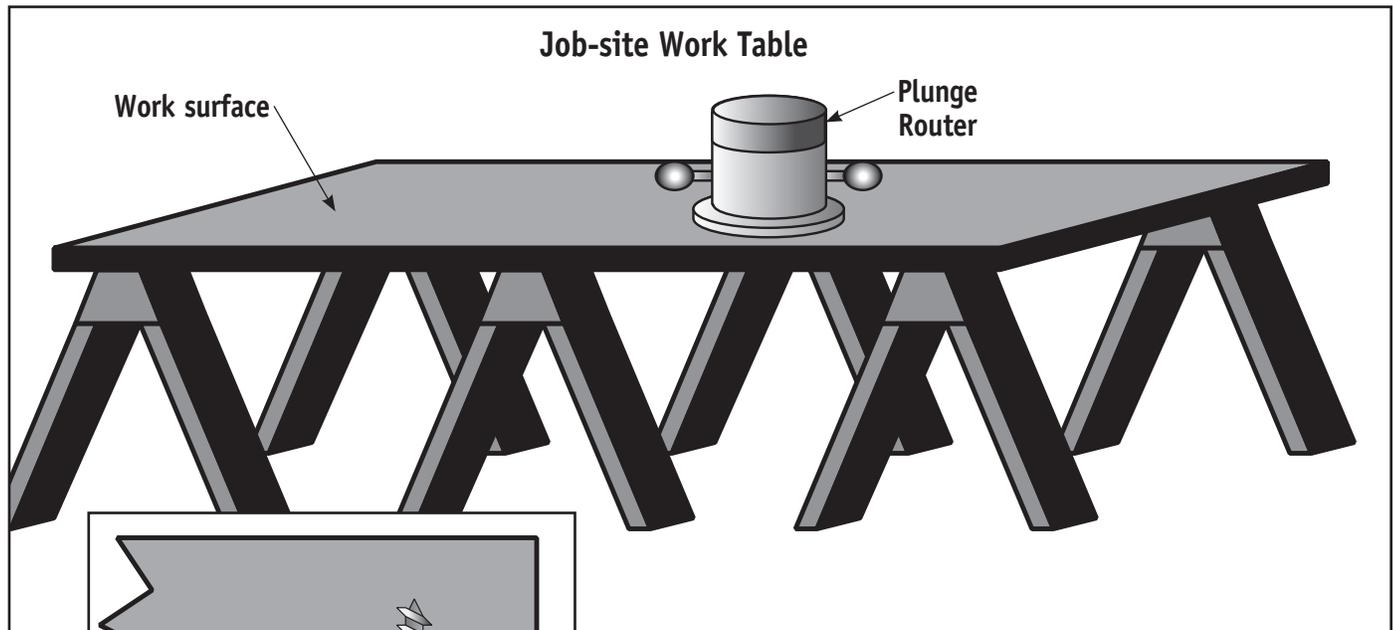


Figure 1

Step 1: Set up a solid work surface

3/4" particle board and three saw horses work well. For added stability, screw a steel or aluminum angle around the perimeter of the particle board on the underside as shown in **Figure 1**.

You will also need a plunge router that accepts a 1/2" router bit.

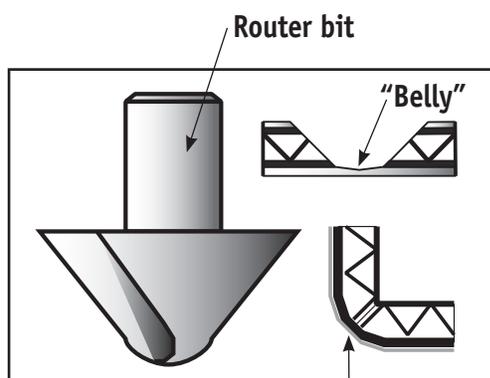


Figure 2

Laminators stocks the correct router bit, (see **Figure 2**) for use with Omega-Lite panels. The tip of the router bit has been tooled so that it is slightly rounded. This creates a slight "belly" at the bottom of the rout. This belly causes the bend location to be slightly rounded, ultimately putting less stress on the aluminum.

Notice that a correct rout removes some of the back side of the face metal.

Omega-Lite® panels can be routed and folded for use as a pure Rout & Return system, or routing can be used in conjunction with other Laminators' installation systems for the purpose of turning corners or for fascia-soffit transitions. First we will address the use of Rout & Return as a system.

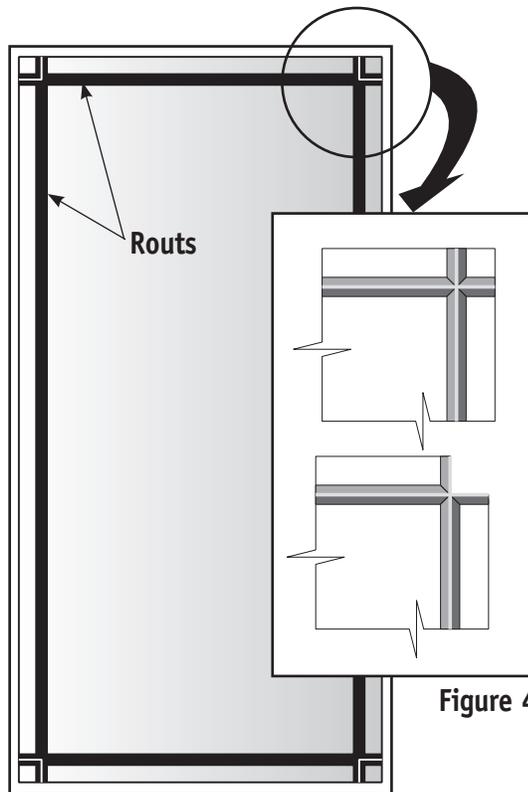


Figure 3

Step 2: Rout edges of the panel

All four edges of the panel must be routed and folded on the back side of the panel. This allows you to create return legs, which are typically 1". **Figure 3** shows a panel that is face down and has been routed.

Figure 4 is a close-up of the upper right-hand corner of the panel. The top part of the illustration shows the panel as it appears after routing. On the bottom part of the illustration the corner has been removed so that the panel can be folded. When removing this corner piece, you must cut directly down the middle of the "belly" described on page 2, so that when folded, the corner comes together correctly.

Step 3: Fold the panel

Prior to folding the panel, the rout should be filled with a Laminators approved silicone caulk, **Figure 5**. This serves two purposes. First, it replaces the material that was removed by the router and provides additional strength. Second, it seals the flutes to keep water out of the panel.

Folding 1" return legs cannot be done by hand. **Figure 6** shows how some installers clamp an aluminum angle to both sides of the return legs to create enough stability to fold them while others simply cut or rout a 1/4" groove about 3/4" deep in a wooden 2x4, place it over the leg, and fold it.

Figure 7 shows the Omega-Lite panel after the bend locations have been folded.

See page 7 for Laminators' approved silicone caulk.

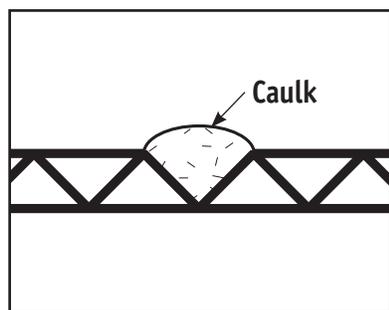


Figure 5

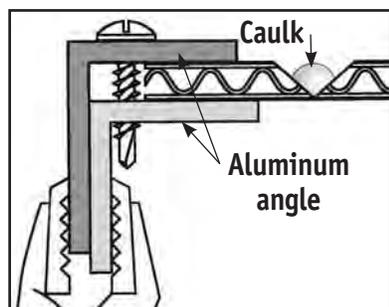


Figure 6

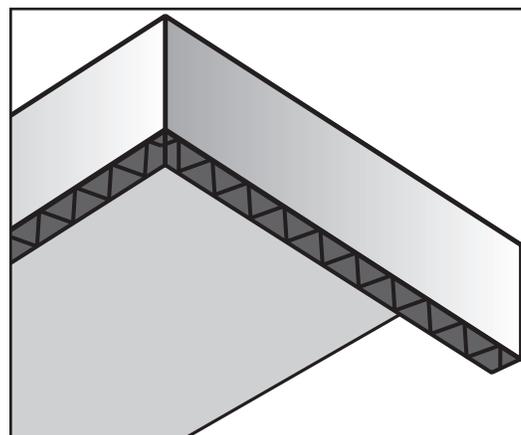


Figure 7

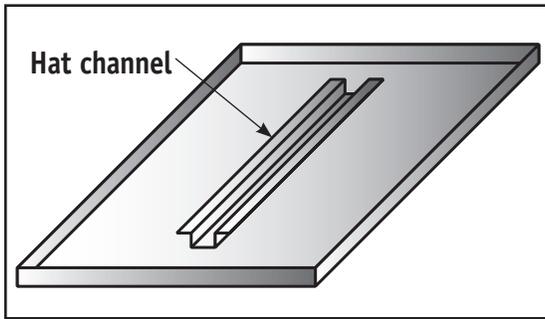


Figure 8

Step 4: Apply hat channel to the back of the panel

Figure 8 depicts the panel after all four return legs have been folded. A hat channel has been attached using a silicone caulk to the back of the panel to act as a stiffener. This is often done on panels larger than 4' x 4' to add stability or to prevent sagging on soffit panels.

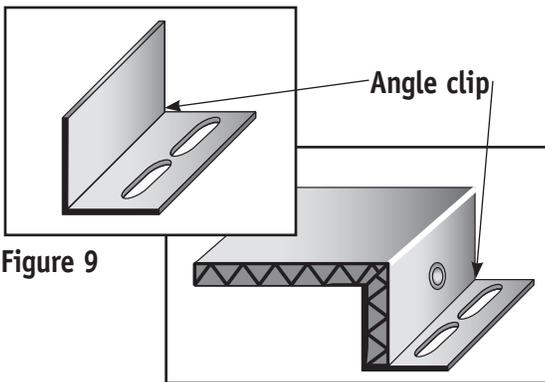


Figure 9

Figure 10

Step 5: Attach clips to the perimeter of the panel

Many fabricators provide their own attachment systems. Laminators uses 3" long angle clips which are attached every 12" to 16" around the perimeter of the panel. See Figure 9. These can either be screwed, using phillips pan-head S.M.S. #8 x 1/4", or riveted to the panel, as shown in Figure 10. Notice that the clip has two slots in it. The slotted side goes against the wall. The slots allow the installer to adjust the panel before the screws are completely tightened.

Figure 11 illustrates the side of a panel with clips around the perimeter. The panel is now ready to be mounted to the wall surface.

See page 7 for Laminators' Rout & Return angle clips.

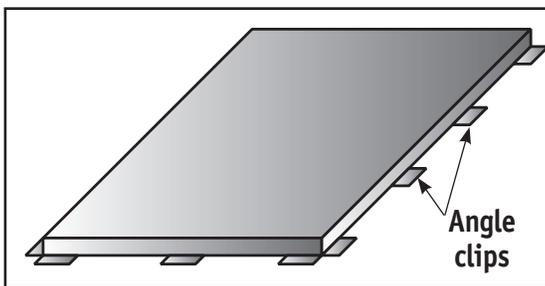


Figure 11

Step 6: Mount panels to the wall surface

As shown in Figure 12 at the lower left, the clips have been staggered on adjoining panels so that they don't interfere with each other. On the right, panels have been mounted to the wall with a 1/2" gap between them. This is the correct width for the caulk joint that will seal the gap between panels.

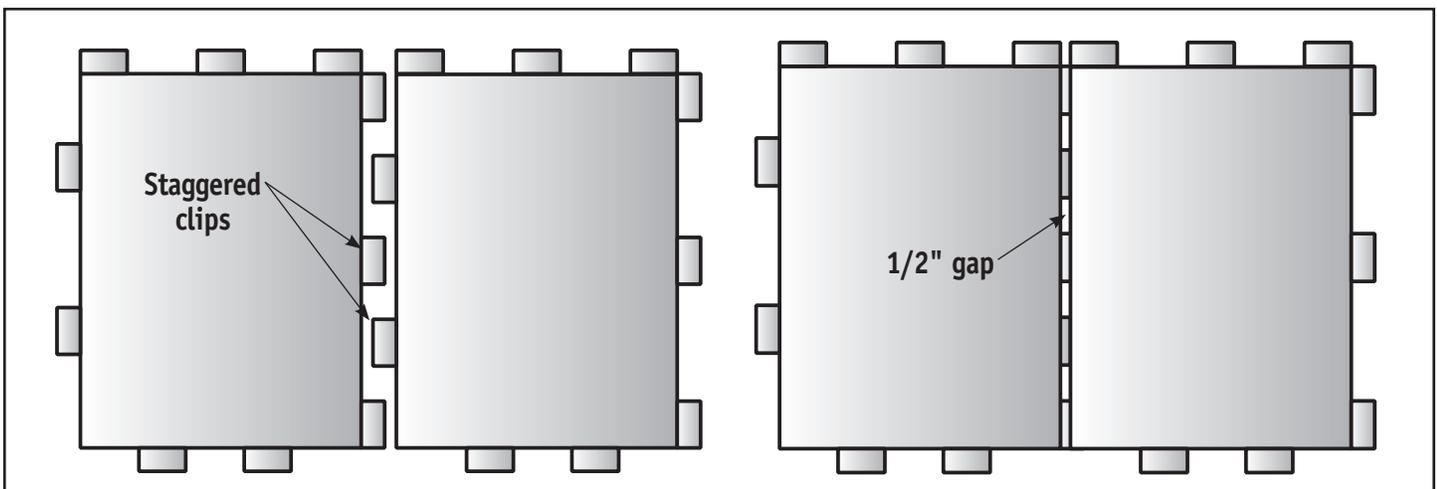


Figure 12

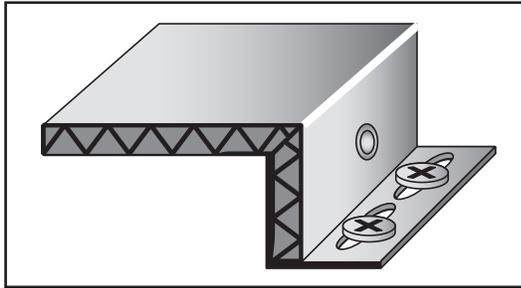


Figure 13

Figure 13 shows a close-up of a clip fastened to the wall with either pan-head or waffle-head screws.

See page 7 for Laminators' screw accessories.

Step 7: Tape sides of caulk joint

In preparation for caulking, both sides of the caulk joint are taped off with 2" wide, blue painters' tape.

See **Figure 14**.

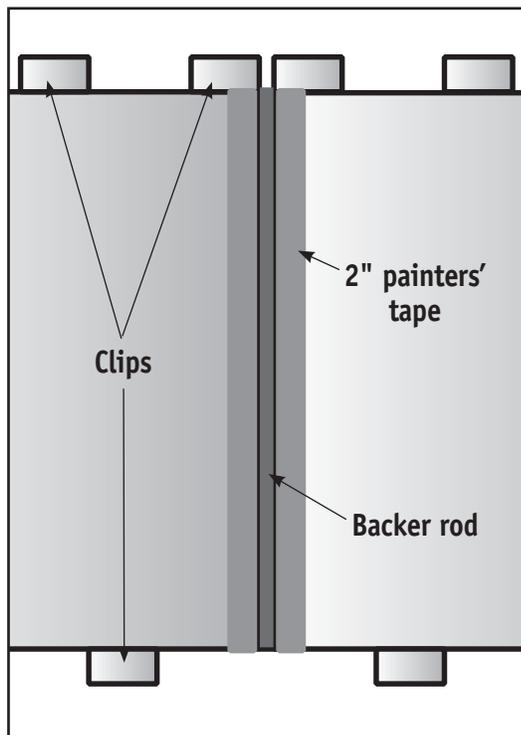


Figure 14

Step 8: Push backer rod into caulk joint

A good caulk joint should only bond to two opposing surfaces. Three-way adhesion will cause the joint to fail. To prevent three-way adhesion, flexible backer-rod is pushed into the joint. This is a foam material that will not bond to caulk. Backer rod also helps create the thinner area in the center of the caulk joint.

Figure 14 is an overhead view of the backer rod inserted into the caulk joint.

Step 9: Caulk the joint

The exposed part of a caulk joint is often tooled with a "caulker's spoon" to create a concave appearance. Some caulkers even tool the joint with the back of an empty caulk tube.

For a caulk joint to function correctly, it should be approximately twice as wide as it is deep, and should be thinner in the middle than at the edges to allow for expansion and contraction without stressing the bond between the caulk and the panel. A correct caulk joint should have an hour-glass shape. See **Figure 15**.

Figure 15 is a cut-away view of the caulk joint.

When caulking 4-way intersections, caulk all vertical or horizontal joints (your choice) and let the caulk cure before caulking the intersecting joints.

See page 7 for Laminators' approved silicone caulk.

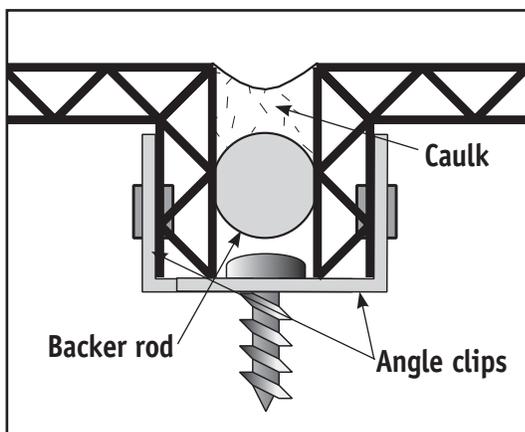


Figure 15

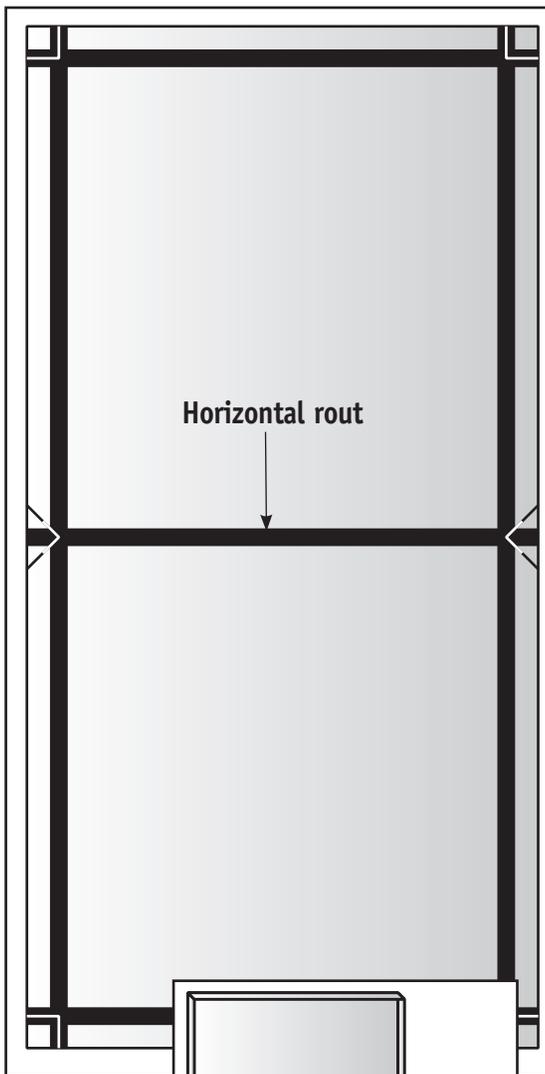


Figure 16

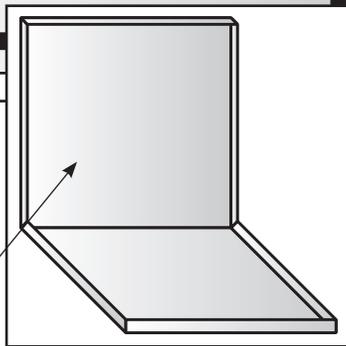


Figure 17

Folded panel for outside corner

To create a panel that can turn a corner or transition from fascia to soffit, we follow most of the same steps already discussed with the addition of another rout to accommodate our corner. Notice in **Figure 16** the panel has a horizontal rout in the center. On each end of the horizontal routed groove you will notice a triangular area that must be removed before the panel can be folded. Regardless of whether you are bending an inside or outside corner, the panel is always routed on the back side.

Figure 17 illustrates a folded Omega-Lite panel that is properly prepared for an outside corner.

As with any other routed groove, inside and outside corner locations must be filled with silicone caulk prior to folding the panel. Additionally, 1" x 1" aluminum angles should be caulked to the back side of the corner to strengthen it.

Figure 18 shows an outside corner panel. **Figure 19** shows an inside corner panel. Again, both panels have been routed on the back and then folded as required.

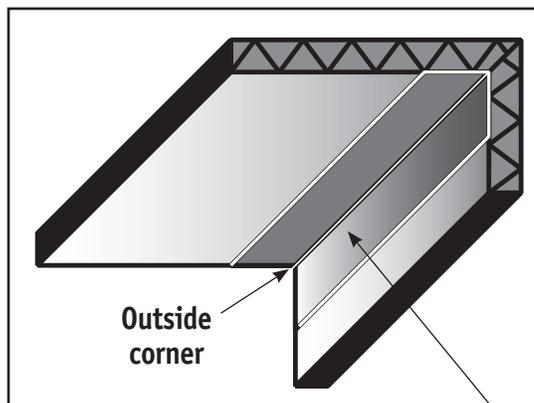


Figure 18

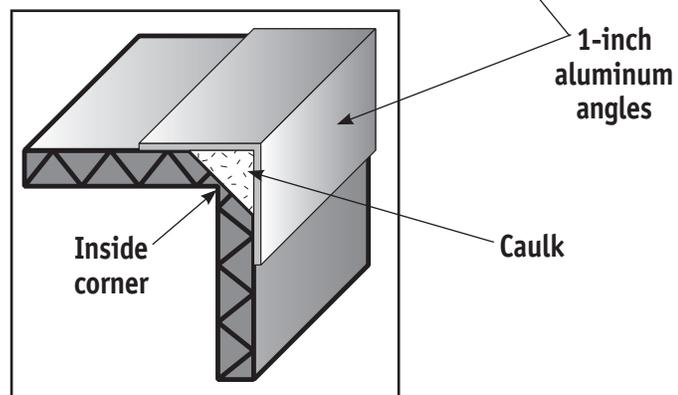


Figure 19

- Work table or saw horses and 3/4" particle board to create work table
- Aluminum brake capable of bending 0.032" aluminum
- Porter-Cable 3 HP router with guide or equivalent able to accept a 1/2" carbide shank
- Laminators' router bit (Part #RB 1/2)
 - Custom designed router bit only available from Laminators Inc. that forces bending into the middle of the groove and eliminates core show-through. Carbide with 1/2" shank.
- Miter saw or chop saw with 10" diameter blade
- Circular saw with 7-1/4" 40-tooth blade (min.)
- Jigsaw with 24-tooth, sheet metal cutting blade
- Caulking gun
- Screw gun
- Long 1/8" drill bit with drill bit plastic guard tubing
- Deburring tool (Part #DEBURRING TOOL)
- Aviation snips or heavy-duty scissors
- Plastic putty tool or scraper to remove excess caulk and adhesive from panels
- Metal single cut rectangular file with medium teeth
- Utility knife
- Tape measure
- Safety glasses
- Gloves to handle panels

ESSENTIAL SUPPLIES

- Panels
- Color-matched flat stock
- Strapping
 - 0.40" aluminum or 20 ga. galvanized exterior sheet metal strips 3" x 8', 10', or 12'
- Furring strips or studs as needed
- Ice & water shield or flashing
- Gaska Tape® V710, 3/16" x 2" or equivalent closed cell 7 lb. density polyvinyl chloride foam tape (Laminators Part #12847)
- Rout & Return angle clips (Laminators Part #50295)
- Silicone Caulk-The following caulks have been tested and meet requirements. Color-matched Pecora 890NST caulk is available from Laminators Inc. (**Note:** Minimum order quantities required for certain color-matched caulks.)
 - Pecora 890, 860, 896, 895
 - Dow Corning® 790, 995, 795, 983, 756, 791
 - GE SilGlaze® II , SilPruf®
- Caulking rope or backer rod; use 1/4" or 3/8" to suit job
- Masking tape (Scotch brand Safe Release Masking Tape™ is recommended) 1" wide
- Screws
 - #6 x 1-1/4" bugle-head drywall or #8 or #10 x 1" Phillips Pan Head for securing clips into sheathing
 - #8 or #10 x 3/4" or longer, TEKS/3 screws to secure clips into steel studs
 - #6 x 1/2" and #6 x 1" Phillips Pan Head, TEKS/2 screws for mounting moldings to plywood or metal
- Wood shims to assist with spacing between panels
- Mineral spirits and rags to clean caulk from panels if necessary
- Touch-up paint

Note: Trademarks are registered by the companies noted.

How Much Will I Need?

For every 100 sq. ft. of Omega-Lite panels you will need approximately:

- 3 tubes 11 oz. silicone caulk
- 35 angle clips 3" long

Omega-Lite Panel Maintenance

Routine cleaning:

Omega-Lite panels should be washed periodically to keep them bright. Plain water and a clean cloth are all you need to remove ordinary dirt buildup. A mild, non-abrasive household detergent with a clean-water rinse can be used for more stubborn stains. Solvents such as alcohols, mineral spirits, naphtha, turpentine, and xylene can be applied with a soft cloth. Never soak panels in solvents.

For scratches and rub-marks:

Omega-Lite touch-up paint and re-paint instructions are available from Laminators. For larger paint repairs, call Laminators for standard paints designed for aluminum surfaces available at paint stores.

Keep harsh solvents away from finish:

Panel finishes are resistant to most but not all solvents and chemicals. You can safely use mineral spirits to remove uncured caulk and paints.

We suggest that the caulk build up enough strength in an overnight cure so that bubbles do not form.

Carefully review the caulk manufacturer's literature for skin formation, tack-free time, and cure times before using. Remember, your environmental condition is the biggest factor in deciding which caulk is appropriate for your project. Caulk only one joint at a time so that the caulk does not skin over before it can be tooled. Only caulk 4' to 6' at a time for a smooth finish.

It is important to only use caulk from our recommended list and to always test your caulk

in the environmental conditions you are currently working in to find the one that works best. Consult with us if your caulk is not performing as expected.

Apply a generous amount of panel adhesive to the sheathing to prevent it from drawing the panel towards the building as it dries; closed cell PVC foam tape should be placed out in the field of the panel where it will shim the adhesive to the proper thickness away from the furring or sheathing.

