The Calumet Model

NOTES:

1)--THIS PLAN WAS DEVELOPED USING THE 2015 INTERNATIONAL RESIDENTIAL BUILDING CODE (IRC 2015).
2)--ALL CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL BUILDING CODES.
3)--THE CONTRACTOR IS TO VERIFY PLANNED DIMENSIONS/ELEVATIONS PRIOR TO CONSTRUCTION.

FOUNDATION:

1)--FOOTINGS DESIGNED FOR MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 2,500 PSF. QUALIFIED GEOTECHNICAL ENGINEER SHOULD VERIFY SOIL BEARING CAPACITY PRIOR TO CONCRETE PLACEMENT.
2)--BOTTOM OF ALL FOOTINGS TO BE A MINIMUM OF 32" BELOW FINISHED EXTERIOR GRADE.
3)--ALL CONCRETE MINIMUM f'c = 3,000 PSI @ 28 DAYS.

FRAMING:

1)--ALL EXTERIOR WALLS ARE 2 X 6 @ 16" O.C. UNLESS NOTED OTHERWISE.
2)--ALL INTERIOR WALLS ARE 2 X 4 @ 16" O.C. UNLESS NOTED OTHERWISE.
3)--STAIRS SHALL HAVE A MINIMUM TREAD DEPTH OF 10" AND A MAXIMUM RISER HEIGHT OF 7¾". THE CONTRACTOR SHOULD FIELD MEASURE PRIOR TO STAIR FABRICATION.
4)--FRAMING LUMBER AS SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL BE K.D.-19% OR LESS- UNLESS NOTED.
5)--A MINIMUM LAP OF 3" SHALL BE USED AT ALL BEARING WALL AND BEAM CONDITIONS.
6)--PROVIDE BRIDGING AT 8'-0" O.C. MAXIMUM SPACING AND PROVIDE SOLID BRIDGING AND/OR BLOCKING AT ALL BEARING POINTS.
7)--ALL STUDS AND/OR JOISTS WHICH ARE CUT TO INSTALL PLUMBING, ELECTRICAL, AND MECHANICAL SHALL REQUIRE METAL MENDING PLATES BY THE RESPECTIVE CONTRACTOR.
8)--ALL JOISTS TO BE DOUBLED UNDER ALL PARALLEL PARTITIONS ABOVE.
9)--WINDOW DESIGNATIONS ARE ANDERSEN SERIES 400.

STRUCTURAL STEEL:

1)--STRUCTURAL STEEL DETAILING, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF STEEL CONSTRUCTION" AS PUBLISHED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
2)--STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36. COLD FORMED, WELDED, AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES SHALL CONFORM TO ASTM A-500.
3)--ALL CONNECTIONS, EXCEPT THOSE INDICATED ON THE DRAWINGS AS WELDED SHALL BE MADE USING 3/4" DIAMETER ASTM A-325 BOLTS WITH NUTS AND WASHERS.
4)--STRUCTURAL STEEL SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGNER SHOWING ALL WELDED AND/OR BOLT CONNECTIONS.
5)--ALL BEARING PLATE ANCHORS SHALL CONFORM TO THE DRAWINGS AND MANUFACTURER SPECIFICATIONS.

ENGINEERED PRODUCTS:

1)--ALL LVL, GLU-LAM, AND PSL PRODUCTS AS SPECIFIED IN THESE DRAWINGS SHALL BE INSTALLED AS PER THE MANUFACTURERS SPECIFICATIONS.
2)--CONTRACTOR SHALL OBTAIN A COPY OF THE MANUFACTURERS FIELD INSTALLATION MANUAL OR SPECIFICATIONS.
3)--ALL "I" BEAM JOISTS (TJI., THE, GNI, ASI, ETC.) SHALL BE INSTALLED AS PER THE MANUFACTURERS SPECIFICATIONS. SUPPLIER OF THESE PRODUCTS SHALL PROVIDE A JOIST LAYOUT AND DETAIL DRAWING TO THE CONTRACTOR.
4)--ALL WOOD TRUSSES CONNECTED WITH LIGHT GAUGE METAL PLATES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE (T.P.I.).
5)--THE MAXIMUM STRESS INCREASE FOR SHORT TERM LOADING IS 15%.
6)--SHOP DRAWINGS FOR EACH TYPE OF TRUSS SHALL BE SUBMITTED TO THE DESIGNER FOR APPROVAL PRIOR TO MFG.
7)--SHOP DRAWINGS SUBMITTED SHALL INDICATE ALL LOADING AND SPACING AND SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER FOR THE STATE IN WHICH THE STRUCTURE IS TO BE BUILT.

TRUSSES:

1)--ROOF TRUSSES TO BE TPI APPROVED AND DESIGNED BY A TRUSS MANUFACTURER. TRUSS MEMBER ARRANGEMENT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL MEMBER SIZE AND LOCATION MAY VARY.
2)--FLOOR AND ROOF TRUSSES SHALL BE BRACED AS PER MANUFACTURER AND T.P.I. SPECIFICATIONS. THE TRUSS MANUFACTURER SHALL PROVIDE ALL HANDLING AND BRACING INFO REQUIRED FOR THE STRUCTURE.

DESIGN LOADS:

1)--ROOF:	30 PSF SNOW,	20 PSF DEAD.
LIVING AREAS:	40 PSF LIVE	20 PSF DEAD
SLEEPING AREAS:	30 PSF LIVE	20 PSF DEAD

BEAM/HEADER DEFLECTIONS L/360 OR LESS.

2015 IECC CODE COMPLIANCE

R301.1 CLIMATE ZONE 4-A

R401.2 COMPLIANCE METHOD:
MANDATORY AND PRESCRIPTIVE PROVISIONS

402.1.1 VAPOR RETARDER
WALL ASSEMBLIES IN THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH VAPOR RETARDER REQUIREMENTS OF SECTION R702.7 OF THE 2015 IRC.

R402.1.2 ATTIC INSULATION: R-49 RAISED HEEL TRUSSES: R-38

R402.1.2 WOOD FRAME WALL:
R-20 OR R13+5 CONTINUOUS INSULATION

R402.1.2 BASEMENT WALL INSULATION:
R-13 / R-10 FOIL FACED CONTINUOUS, UNINTERRUPTED BATTS FULL HEIGHT

R402.1.2 CRAWL SPACE WALL INSULATION:
R-13 / R-10 FOIL FACED CONTINUOUS BATTS FULL HEIGHT EXTENDING FROM FLOOR ABOVE TO FINISH GRADE LEVEL AND THEN VERTICALLY OR HORIZONTALLY AN ADDITIONAL 2'-0".

R402.1.2 FLOOR INSULATION OVER UNCONDITIONED SPACE:
R-19 BATT INSULATION

R402.1.2 WINDOW U-VALUE / SHGC
.35 (U-VALUE)
.40 (SHGC)

R402.2.10 SLAB ON GRADE FLOORS LESS THAN 12" BELOW GRADE:
R-10 RIGID FOAM BOARD UNDER SLAB EXTENDING EITHER 2'-0" HORIZONTALLY OR 2'-0" VERTICALLY

R402.2.4 ATTIC ACCESS:
ATTIC ACCESS SCUTTLE WILL BE WEATHER-STRIPPED AND INSULATED R-49

R402.4 BUILDING THERMAL ENVELOPE (AIR LEAKAGE):
EXTERIOR WALLS AND PENETRATIONS WILL BE SEALED PER THIS SECTION OF THE 2015 IECC WITH CAULK, GASKETS, WEATHER-STRIPPING OR AN AIR BARRIER OF SUITABLE MATERIAL. SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW SEALING FOR DIFFERENTIAL EXPANSION AND CONTRACTION.

R402.4.1.2 BUILDING THERMAL ENVELOPE TIGHTNESS TEST:
BUILDING ENVELOPE SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE OF NOT EXCEEDING 3 AIR CHANGES PER OUR. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM E 779 OR ASTM E 1827 WITH (BLOWER DOOR) AT A PRESSURE OF 0.2 INCHES w.g. (50 PASCALS). TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE BUILDING INSPECTOR.

R402.4.2 FIREPLACES:
NEW WOOD BURNING FIREPLACES WILL HAVE TIGHT-FITTING FLUE DAMPERS OR DOORS AND OUTDOOR COMBUSTION AIR. FIREPLACE DOORS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 127 (FACTORY BUILT FIREPLACE) AND UL 907 (MASONRY FIREPLACE).

R402.4.4 ROOMS CONTAINING FUEL BURNING APPLIANCES WHERE OPEN COMBUSTION AIR DUCTS PROVIDE COMBUSTION AIR TO OPEN COMBUSTION FUEL BURNING APPLIANCES, THE APPLIANCES AND COMBUSTION AIR SHALL BE LOCATED OUTSIDE THE BUILDING THERMAL ENVELOPE OR ENCLOSED IN A ROOM ISOLATED FROM INSIDE THE THERMAL ENVELOPE.
EXCEPTIONS: 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO THE OUTSIDE. 2. FIREPLACES AND STOVES COMPLYING WITH SECTION R402.4.2 AND SECTION R1006 OF THE IRC.

R402.4.5 RECESSED LIGHTING:
RECESSED LUMINARIES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE.

R403.1.1 THERMOSTAT:
ALL DWELLING UNITS WILL HAVE AT LEAST ONE (1) PROGRAMMABLE THERMOSTAT FOR EACH SEPARATE HEATING AND COOLING SYSTEM PER 2015 IECC SECTION 403.1.1

R403.1.2 WHERE A HEAT PUMP SYSTEM HAVING SUPPLEMENTARY ELECTRIC RESISTANCE HEAT IS USED, THE THERMOSTAT SHALL PREVENT THE SUPPLEMENTARY HEAT FROM COMING ON WHEN HEAT PUMP CAN MEET THE HEATING LOAD.

R403.3.1 MECHANICAL DUCT INSULATION:
SUPPLY DUCTS IN ATTIC R-8 MINIMUM, R-6 WHEN LESS THAN 3 INCHES. SUPPLY AND RETURN DUCTS OUTSIDE OF CONDITIONED SPACES R-8 MINIMUM. ALL OTHER DUCTS EXCEPT THOSE LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE R-6 MINIMUM. DUCTS LOCATED UNDER CONCRETE SLABS MUST BE R-6 MINIMUM.

R403.3.2 DUCT SEALING:
ALL DUCTS, AIR HANDLERS, FILTER BOXES WILL BE SEALED. JOINTS AND SEAMS WILL COMPLY WITH SECTION M1601.4.1 OF THE IRC.

A DUCT TIGHTNESS TEST ("DUCT BLASTER" DUCT TOTAL LEAKAGE TEST) WILL BE PERFORMED ON ALL HOMES AND SHALL BE VERIFIED BY EITHER POST CONSTRUCTION TEST OR A ROUGH-IN TEST. DUCT TIGHTNESS TEST IS NOT REQUIRED IF THE AIR HANDLER AND ALL DUCTS ARE LOCATED WITHIN CONDITIONED SPACES.

R403.6 MECHANICAL VENTILATION:
OUTDOOR (MAKE-UP) AIR WILL BE BROUGHT INTO THE HOME THRU A DUCT WITH AN AUTOMATIC OR GRAVITY DAMPER THAT CLOSES WHEN THE VENTILATION SYSTEM IS NOT OPERATING.

R403.6.1 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICIENCY TO COMPLY WITH TABLE 403.6.1.

R403.7 EQUIPMENT SIZING SHALL COMPLY WITH R403.7

R404.1 LIGHTING EQUIPMENT:
A MINIMUM OF 75% OF ALL LAMPS (LIGHTS) MUST BE HIGH EFFICIENCY LAMPS.

THIS CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR GENERATING A CERTIFICATE OF COMPLIANCE AND AFFIXING IT TO THE ELECTRIC PANEL OR WITHIN 6 FEET OF THE ELECTRICAL PANEL AND BE READILY VISIBLE.

Table 402.4.2. Air Barrier and Insulation Inspection Component Criteria

Air barreir and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier. Breaks or joints in the air barrier are filled or repaired. Air permeable insulation is not used as a sealing material. Air permeable insulation is inside of an air barrier.
Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed. Attic access (except unvented attic), knee wall door, or drop down stair is sealed.
Walls	Corners and headers are insulated. Junction of foundation and sill plate is sealed.
Windows and doors	Space between window/door jams and framing is sealed.
Rim joists	Rim joists are insulated and include air barrier.
Floors (including above garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking. Air barrier is installed at any exposed edge of insulation.
Crawl space walls	Insulation is permanently attached to walls. Exposed earth in unvented crawl space is covered with class I vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations, knee walls, and flue shafts opening to exterior or unconditioned space are sealed.
Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.
Garage separation	Air sealing is provided between the garage and conditioned spaces.
Recessed lighting	Recesssed light fixtures are airtight, IC rated, and sealed to drywall. Exception--fixtures in conditiond space.
Plumbing and wiring	Insulation is placed between outside and pipes. Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring.
Shower/tub on exterior wall	Shower and tubs on exterior walls have insulation and air barrier separating them from the exterior wall.
Electrical/phone box on exterior walls	Air barrier extends behind boxes or air sealed-type boxes are installed.
Common wall	Air barrier is installed in common wall between dwelling units.
HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.
Fireplace	Fireplace walls include an air barrier.

NOTE:
THE STRUCTURE SHALL BE FULLY SPRINKLERED. THE SPRINKLER SYSTEM SHALL BE DESIGNED BY A LICENCED / CERTIFIED FIRE SPRINKLER CONTRACTOR.

AREA:	
1ST FLOOR:	884 SQ. FT.
2ND FLOOR:	884 SQ. FT.
TOTAL FLOOR:	1,768 SQ. FT.
GARAGE:	378 SQ. FT.
TOTAL ENCLOSED:	2,146 SQ. FT.

INDEX OF DRAWINGS

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27189 EXPIRATION DATE 03/26/20.

SIGNED: DATE:

OLT Munoz, LLC
20 New Plant Court
Suite 106
Owings Mills, MD 21117

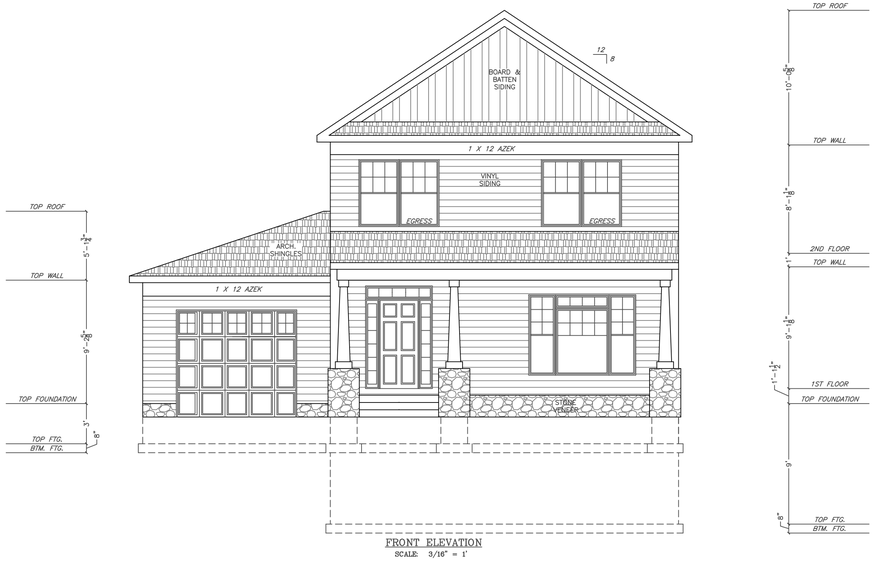
CALUMET MODEL
TITLE PAGE

State Line Engineering, LLC
4901 Picker Drive
Pylesville, Maryland 21132
Phone: 443-564-4441
Fax: 410-452-0111

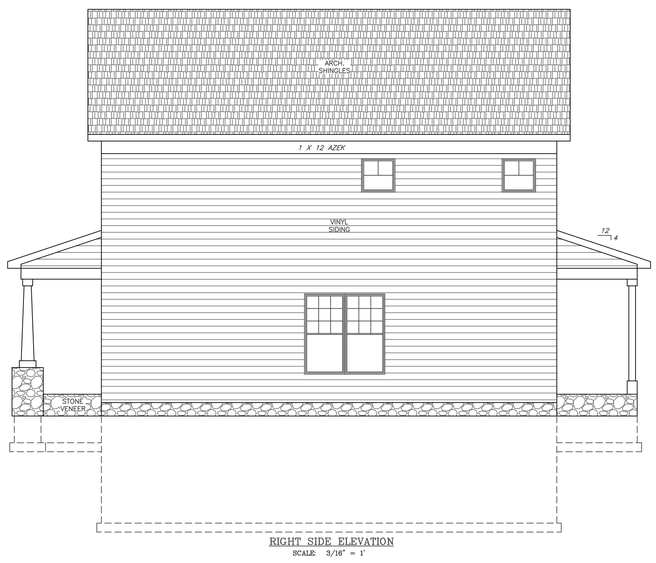
REVISIONS

11/25/19
Drawn By MW

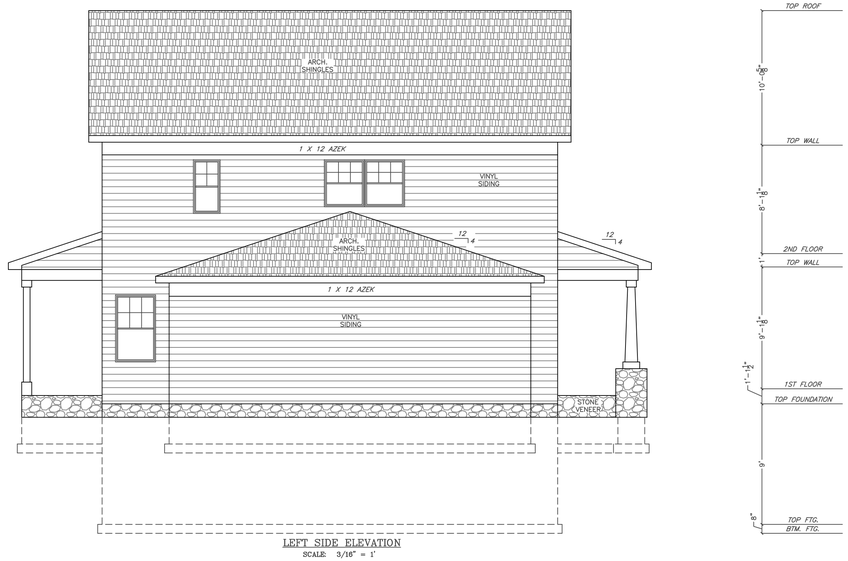
T-1



FRONT ELEVATION
SCALE: 3/16" = 1'



RIGHT SIDE ELEVATION
SCALE: 3/16" = 1'



LEFT SIDE ELEVATION
SCALE: 3/16" = 1'

REAR ELEVATION
SCALE: 3/16" = 1'

OLT Munoz, LLC
20 New Plant Court
Suite 106
Owings Mills, MD 21117

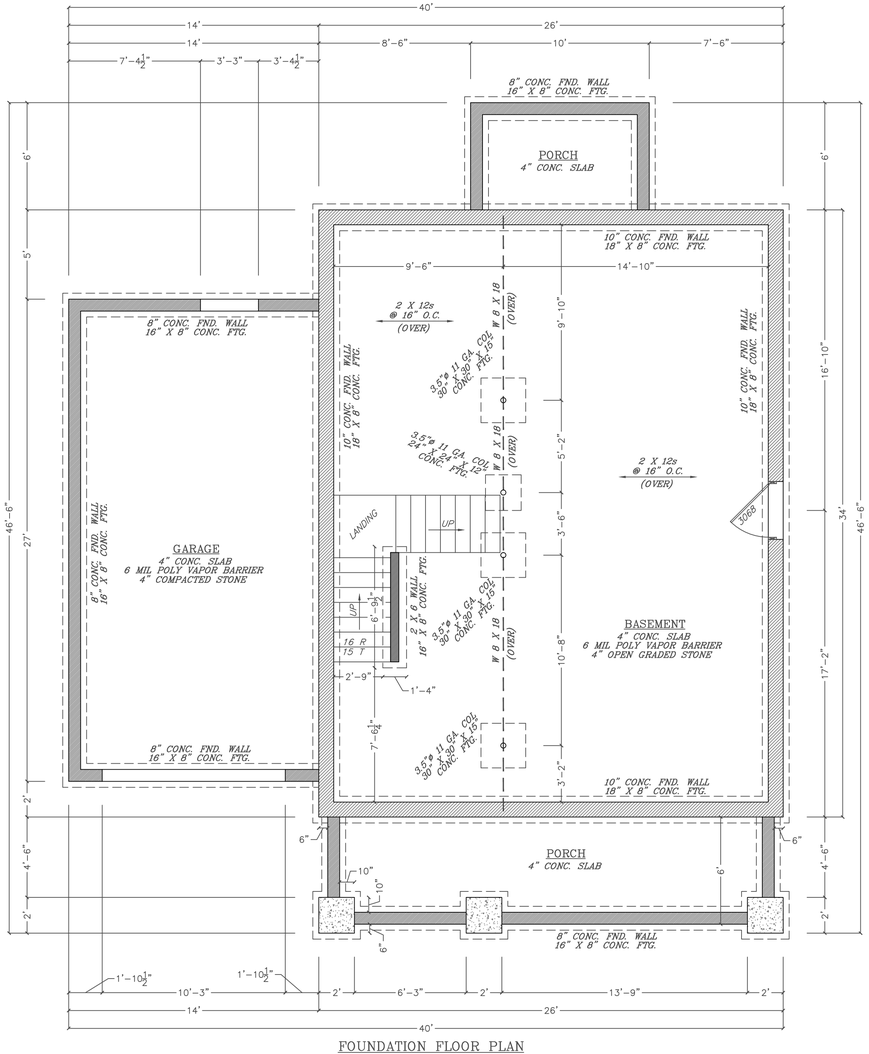
CALUMET MODEL
ELEVATIONS

State Line Engineering, LLC
4901 Picker Drive
Pylesville, Maryland 21132
Phone: 443-504-6641
Fax: 410-452-0111

REVISIONS

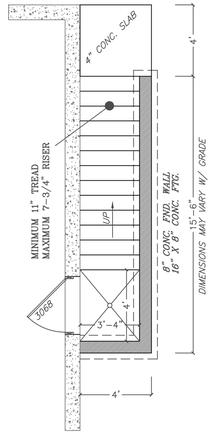
11/25/19
Drawn By MW

S-1



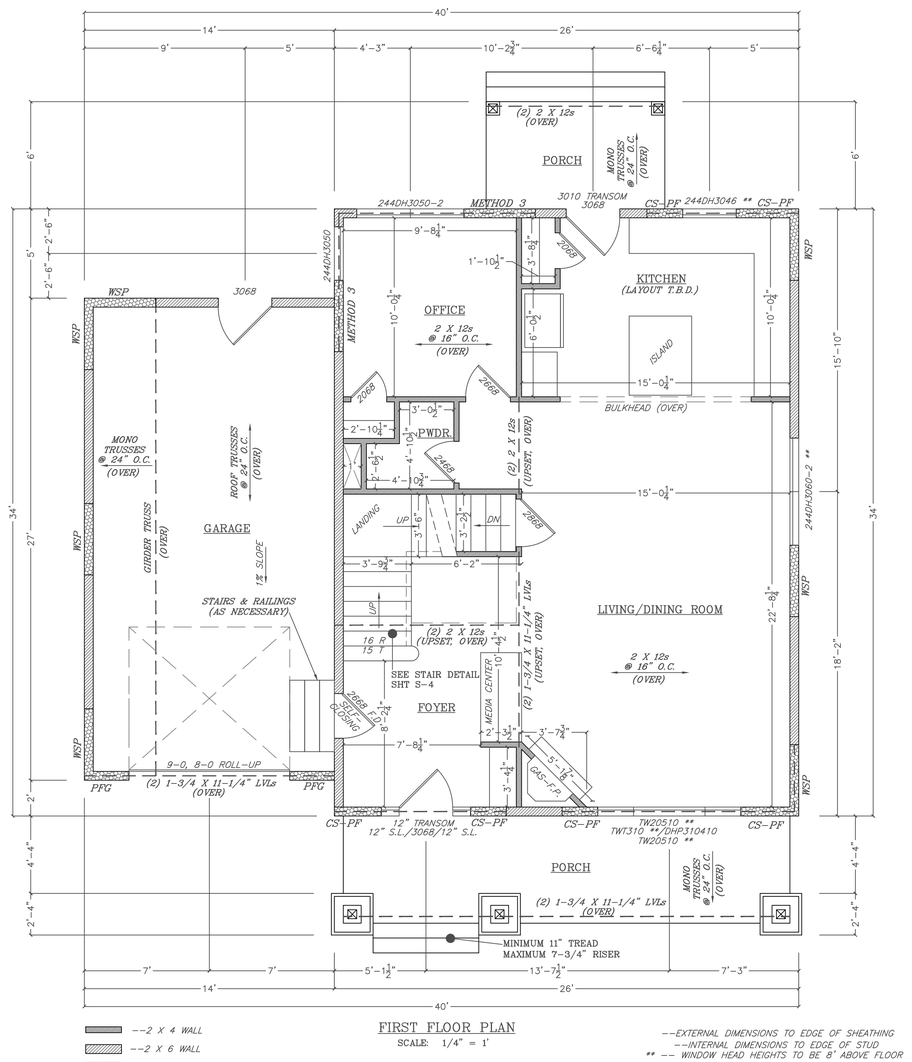
FOUNDATION FLOOR PLAN

SCALE: 1/4" = 1'



AREAWAY PLAN

SCALE: 1/4" = 1'



--2 X 4 WALL

--2 X 6 WALL

--BRACED WALL PANEL
WSP
CS-PF

FIRST FLOOR PLAN

SCALE: 1/4" = 1'

--EXTERNAL DIMENSIONS TO EDGE OF SHEATHING
--INTERNAL DIMENSIONS TO EDGE OF STUD
** -- WINDOW HEAD HEIGHTS TO BE 9' ABOVE FLOOR

CALUMET MODEL
FOUNDATION &
FLOOR PLAN

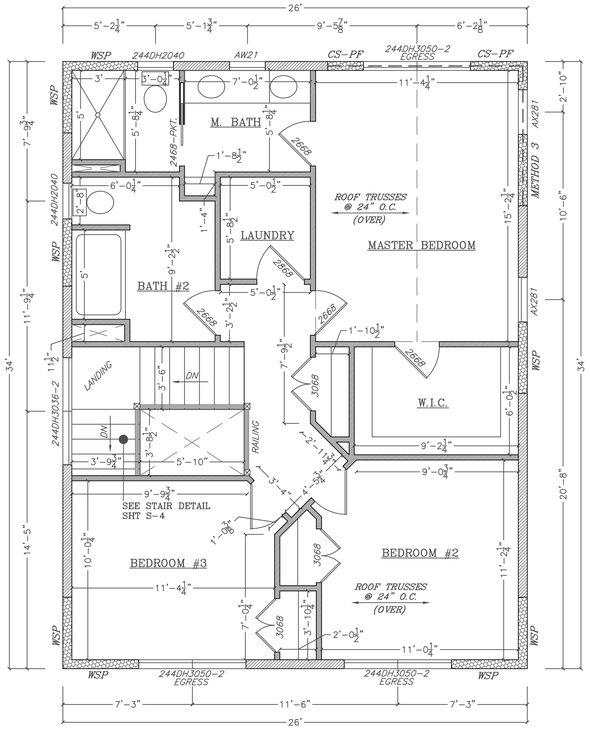
OLT Munoz, LLC
20 New Plant Court
Suite 106
Owings Mills, MD 21117

State Line Engineering, LLC
4901 Picker Drive
Pylesville, Maryland 21132
Phone: 443-452-1641
Fax: 410-452-0111

REVISIONS

11/25/19
Drawn By MW

S-2



SECOND FLOOR PLAN

SCALE: 1/4" = 1'

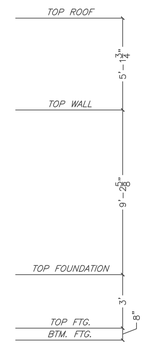
--2 X 4 WALL

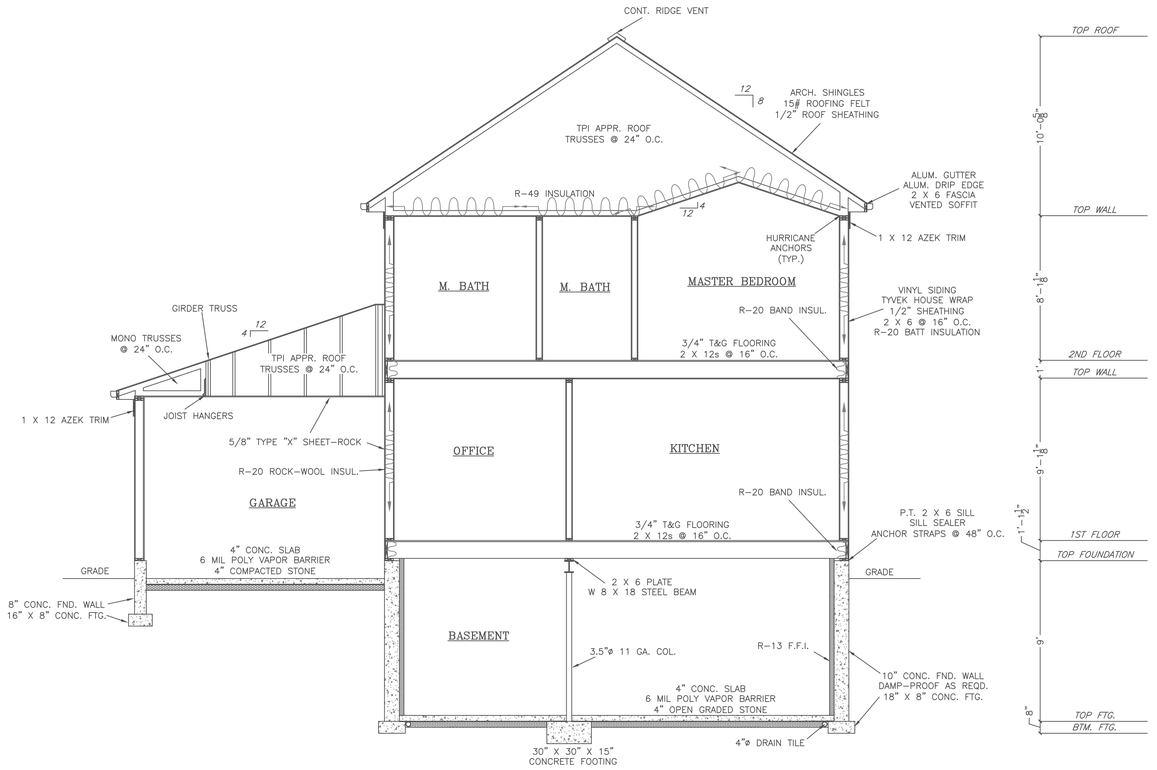
--2 X 6 WALL

WSP CS-PF --BRACED WALL PANEL

--EXTERNAL DIMENSIONS TO EDGE OF SHEATHING

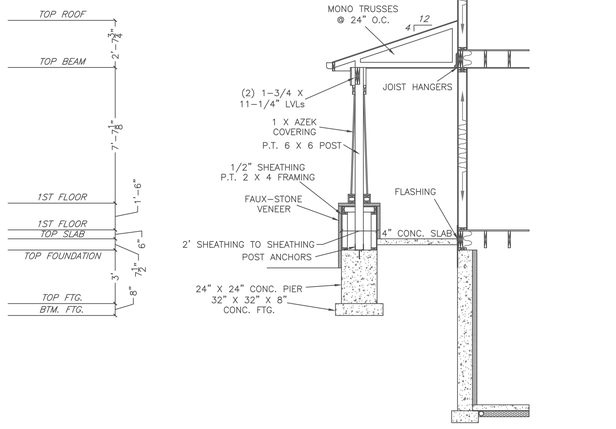
--INTERNAL DIMENSIONS TO EDGE OF STUD





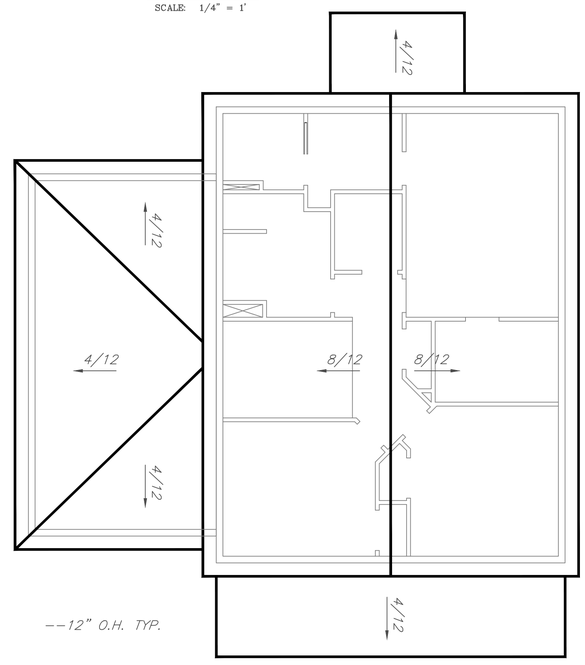
SECTION

SCALE: 1/4" = 1'



PARTIAL SECTION @ FRONT PORCH

SCALE: 1/4" = 1'



ROOF PLAN

SCALE: 3/16" = 1'

OLT Munoz, LLC
20 New Plant Court
Suite 106
Owings Mills, MD 21117

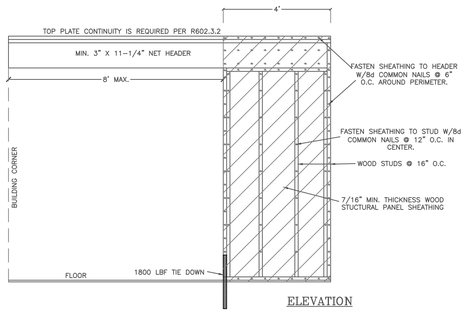
CALUMET MODEL
2ND FLOOR, ROOF &
CROSS SECTIONS

State Line Engineering, LLC
4901 Picker Drive
Pylesville, Maryland 21132
Phone: 443-924-6641
Fax: 410-452-0111

REVISIONS

11/25/19
Drawn By MW

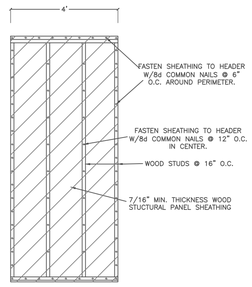
S-3



ELEVATION

METHOD 3

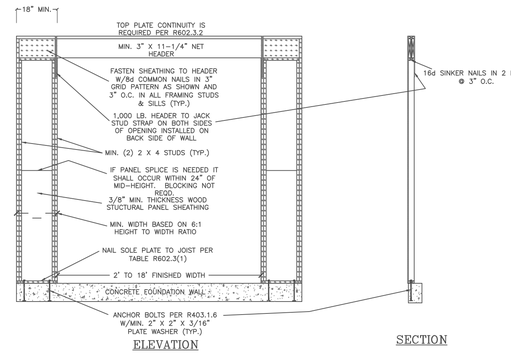
N.T.S.



ELEVATION

WSP (WOOD STRUCTURAL PANEL)

N.T.S.

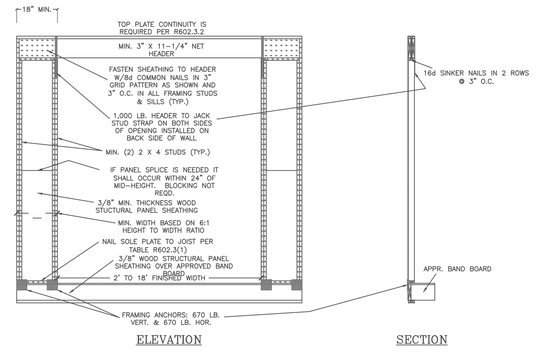


ELEVATION

SECTION

PFG (PORTAL FRAME @ GARAGE DOOR)

N.T.S.



ELEVATION

SECTION

CS-PF (CONTINUOUS SHEATHING-PORTAL FRAME)

N.T.S.

STAIR DETAIL

SCALE: 3/4" = 1'

INSIDE CORNER DETAIL

OUTSIDE CORNER DETAIL

OLT Munoz, LLC
20 New Plant Court
Suite 106
Owings Mills, MD 21117

CALUMET MODEL
DETAILS

State Line Engineering, LLC
4901 Picker Drive
Pylesville, Maryland 21132
Phone: 443-452-1641
Fax: 410-452-0111

REVISIONS

11/25/19
Drawn By MW

S-4