WOODLANDS AT GREYSTONE

SCULTHORPE DR., WEST GOSHEN TOWNSHIP, CHESTER COUNTY, PA

FLUENT DESIGN GROUP, LLC
Engineering|Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET

STRUCTURAL NOTES

CONCRETE NOTES:

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE ACI-318 BUILDING CODE AND ACI-301 SPECIFICATIONS.
2. ALL FOOTING SHALL BEAR ON UNDISTURBED SOIL WITH A FOOTING DEPTH A MINIMUM OF 36" BELOW GRADE.
3. SEE CODE NOTES FOR SOIL BEARING PRESSURE.
4. FILL MATERIAL SHALL BE FREE OF DEBRIS, VEGETATION AND OTHER FOREIGN SUBSTANCES.
5. CONCRETE DESIGN BASED ON ACI 318. CONCRETE SHALL ATTAIN THE FOLLOWING MIN. COMPRESSIVE STRENGTHS IN 28 DAYS, U.N.O.:
   f'c = 4,000 psi ..... FOUNDATION WALLS
   f'c = 3,500 psi ..... FOOTINGS & INTERIOR SLABS ON GRADE
   f'c = 3,500 psi ..... Garage & EXTERIOR SLABS ON GRADE
   fy = 60,000 psi
6. BASEMENT WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY ADEQUATE TEMPORARY BRACING OR INSTALL 1st FLOOR DECK.
7. BASEMENT WALL DESIGN IS BASED ON 30 OR 45 PCF BACKFILL SOIL TYPE CLASSIFICATIONS.
   - 30 PCF TYPE (GW, GP, SW, SP)
   - 45 PCF TYPE (GM, GC, SM, SM-SC, ML)
   - IMPORTANT - IF 60 PCF SOIL TYPE (SC, ML-CL OR CL) IS UTILIZED FOR BACKFILL, CONTACT FLUENT DESIGN GROUP FOR FURTHER EVALUATION OF FOUNDATION DESIGN.
8. ALL REINFORCEMENT SHALL BE ASTM A615, GRADE 60. ALL WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A185.
9. TYPICAL REINFORCEMENT DETAILS: PROVIDE 3" MIN. CLEAR COVER WHERE CAST AGAINST EARTH, ½" MIN. CLEAR COVER AGAINST FORMS. LAP ALL REBAR #8 BAR DIAMETERS MIN. (24" FOR #4 BARS) & BEND BARS AND LAP AT CORNERS. PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT.
10. ALL REINFORCING BARS SHALL BE SECURELY SUPPORTED AND WIRED IN PLACE PRIOR TO CONCRETE PLACEMENT.
11. PROVIDE (2) #5 BARS AROUND ALL SIDES OF OPENINGS IN CONCRETE BASEMENT FOUNDATION WALL WITH 2" CLEAR. REINFORCEMENT SHALL EXTEND 12" PAST CORNER OF OPENING IN ALL DIRECTIONS.
    - FOR OPENINGS UP TO 36", PROVIDE MINIMUM 10" CONCRETE DEPTH OVER OPENINGS OR (3)12x10 W/ (2)2x6 JACK STUDS, U.N.O.
    - LARGER OPENINGS SHALL BE PER PLAN.
12. ADHESIVE ANCHORS SHALL BE HILTI HIVHY 150 INJECTION ADHESIVE ANCHORS AND SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES. INSERTS OR RODS SHALL BE ASTM A-316 STAINLESS STEEL.
13. NON-SHRINK, GROUT OR DRY PACK. A PREMIXED NONMETALLIC FORMULA HAVING THE FOLLOWING PROPERTIES: ON-SHRINK, NON-EXPANSIVE (ASTM C-827), 24 HOUR COMPRESSIVE STRENGTH OF 3,000 PSI, AND MINIMUM OF 5,000 PSI AT 30 DAYS.
14. FOUNDATION ELEVATIONS SHOWN ARE MINIMUM. EXTERIOR FOOTINGS SHALL REST AT LEAST 3'-0 BELOW FINISHED GRADE AND ALL FOOTINGS SHALL REST AT LEAST 1'-6 BELOW EXISTING GRADE.

MASONRY NOTES:

1. MASONRY CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE BUILDING CODE FOR MASONRY, ACI-530
2. CONCRETE MASONRY UNITS SHALL BE ASTM C90, GRADE N, NORMAL WEIGHT, NON-MOISTURE CONTROLLED UNITS, UNLESS NOTED OTHERWISE.
3. MORTAR SHALL BE TYPE M OR S AND MORTAR JOINTS SHALL BE CONCAVE.
4. ALL MASONRY WALLS TO BE BUILT STAGGERED BOND WITH A FULL MORTAR BED.
5. GROUT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C467 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI. WHERE COARSE GROUT IS REQUIRED, #8 STONE AGGREGATE SHALL BE USED.
6. THE COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLAGE (f'm) SHALL BE 1500 PSI.
7. PROVIDE 9 GA TRUSS JOINT REINFORCEMENT EVERY OTHER COURSE, U.N.O.
8. PRECAST LINTELS SHALL BE 8" NOMINAL DEPTH WITH 1-#5 BOTTOM AND 1-#4 TOP FOR EACH 4" OF WALL THICKNESS.

WOOD FRAMING NOTES:

1. ALL DIMENSIONAL LUMBER SHALL BE SPF, HEM FIR, OR BETTER WITH MOISTURE CONTENT <19 U.N.O. AND SHALL HAVE THE FOLLOWING MINIMUM GRADES:
   ALL 4X2 OR SMALLER FRAMING MEMBERS - #2
   ALL FRAMING MEMBERS LARGER THAN 4X2 - #1
   ALL POST LARGER THAN 4X4 - #1
   ALL 2X STUDS WITH UNBRACED LENGTH LESS THAN 10' - STUD OR STANDARD U.N.O.
   ALL 2X STUDS WITH UNBRACED LENGTH GREATER THAN 10' - #2
   ALL TOP AND SILL PLATES - STANDARD
   ALL TRUSS MEMBERS - PER MANUFACTURERS SPECIFICATIONS
2. ALL SPECIFIED NAILS SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS, U.N.O.:
   8d NAILS: 2½" LONG, 0.131" Ø SHANK, FULL HEAD
   10d NAILS: 3" LONG, 0.131" Ø SHANK, FULL HEAD
   12d NAILS: 3¼" LONG, 0.131" Ø SHANK, FULL HEAD
   16d NAILS: 3½" LONG, 0.131" Ø SHANK, FULL HEAD
3. ALL PLYWOOD SHALL CONFORM TO APA PS 1. ALL SHEAR PLYWOOD SHALL BE C-D, C-C, 303 (T1-11), OR APPROVED EQUAL.
4. WHERE MULTIPLE TRIMMERS, STUDS, OR POSTS ARE SPECIFIED, THOSE TRIMMERS OR STUDS ARE TO BE STACKED IN ALL WALL FRAMING TO THE FOUNDATION. ADDITIONALLY VERTICAL GRAIN BLOCKING IS TO BE PROVIDED THROUGH THE FLOOR FRAMING.
5. PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS CONTINUOUS TO FOUNDATION/BEARING. BLOCKING TO MATCH POST ABOVE
6. ALL LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) SPECIFIED SHALL HAVE THE FOLLOWING MINIMUM DESIGN STRENGTHS:
   LVL: Fb=2,600 PSI, Fv=220 PSI, E=1,800,000 PSI
   PSL: Fb=2,900 PSI, Fv=290 PSI, E=2,000,000 PSI
7. ALL MULTIPLE LVL MEMBERS ARE TO BE ATTACHED WITH (3) ROWS OF 16d COMMON NAILS @ 12" O.C. FOR A (3) PLY MEMBER NAILING IS TO BE FROM EACH SIDE.
8. ALL MEMBERS WITHIN 6" OF THE GROUND OR IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED.
9. MEMBERS OF LARGER DEPTH OR GREATER STRENGTH MAY BE SUBSTITUTED FOR THOSE SPECIFIED IN HERE WITHIN.
10. ALL MULTILAYER JOIST OR RAFTERS SHALL BE ATTACHED WITH (2) ROWS OF 16d COMMON NAILS @ 12" O.C. WITH AN EDGE DISTANCE OF 2". APPLY NAILING FROM BOTH FACES @ 3-PLY OR GREATER.
11. ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD & (1)2x KING STUD, MINIMUM.
    THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, U.N.O.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL WIDE FLANGE SECTIONS SHALL CONFORM TO ASTM-A992, UNLESS NOTED OTHERWISE. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM-A36, UNLESS NOTED OTHERWISE. SPECIAL CARE SHOULD BE TAKEN TO PROCURE PLATE AND ROLLED SECTIONS FREE FROM INTERNAL LAMINATIONS.
2. ALL PIPE SHALL CONFORM TO ASTM A-53, TYPE "S" GRADE B.
3. ALL HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A-500 GR. B.
4. WELD FILLER WIRE SHALL BE E70XX, LOW HYDROGEN FOR ALL CONNECTIONS, ALTERNATE WIRE MUST BE APPROVED BY ENGINEER.
5. ALL BOLTS SHALL CONFORM TO ASTM A-325, UNLESS NOTED OTHERWISE. BOLTS MUST HAVE ADEQUATE LENGTH FOR WASHERS, NUT, AND MATERIAL BEING CONNECTED.
6. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED PER THE REQUIREMENTS OF THE AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE AS AMENDED TO DATE.
7. PRIOR TO FABRICATION AND ERECTION, STEEL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
8. ALL MEMBERS WHEN FINISHED SHALL BE FREE OF TWISTS, BENDS, AND OPEN JOINTS BETWEEN COMPONENT PARTS. MEMBERS SHALL BE STRAIGHTENED IN THE SHOP IN A MANNER THAT WILL NOT INJURE THEM, BEFORE BEING WORKED.
9. MEMBER SPLICES ARE PERMITTED ONLY WHERE INDICATED ON THE DRAWINGS.
10. ALL MEMBER CONNECTIONS ARE DETAILED ON THE DRAWINGS. WHERE NO DETAIL IS PROVIDED THE CONTRACTOR MUST DETAIL THE CONNECTION.
11. ALL BOLT HOLES SHALL BE DRILLED OR REAMED. FLAME CUT HOLES ARE UNACCEPTABLE.
12. MANUAL OXYGEN CUTTING SHALL BE DONE ONLY WITH A MECHANICALLY GUIDED TORCH. ALTERNATIVELY AN UNGUIDED TORCH MAY BE USED PROVIDED THE CUT IS NOT WITHIN ½" OF THE FINAL DIMENSION AND FINAL REMOVAL IS THROUGH CHIPPING OR GRINDING, TO PROVIDE A SURFACE EQUAL TO A CUT EDGE. CLEAN ALL CUT EDGES BY GRINDING TO REMOVE ALL BURRS, GOUGES, CUTS, AND JOGS.
13. FOR STRUCTURAL-STEEL CONNECTIONS INDICATED TO COMPLY WITH DESIGN LOADS, INCLUDE STRUCTURAL ANALYSIS DATA PREPARED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.

PREFABRICATED TIMBER TRUSSES

1. SUBMIT SHOP DRAWINGS, INCLUDING TRUSS LAYOUT, AND CALCULATIONS OR STRESS DIAGRAMS FOR EACH TYPE OF TRUSS TO THE ARCHITECT FOR REVIEW. ALLOW TEN WORKING DAYS FOR THE REVIEW.
2. SHOP DRAWINGS AND CALCULATIONS TO BE REVIEWED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF PENNSYLVANIA.
3. ALL DESIGN IS TO CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE, NFPA, AND TRUSS PLATE INSTITUTE (TPI) SPECIFICATIONS.
4. PROVIDE CONTINUOUS BRIDGING AS REQUIRED BY TPI RECOMMENDATIONS.
5. TEMPORARY BRACING AND/OR SHORING OF THE LIGHT GAUGE METAL TRUSSES IS THE CONTRACTOR'S RESPONSIBILITY.

MECHANICAL NOTES:

1. ALL EQUIPMENT AND MAJOR PIPE RUNS SHALL BE SUPPORTED FROM AT LEAST TWO ADJACENT ROOF JOISTS. IDEALLY HANG ALL EQUIPMENT, PIPING AND PANELS FROM A TOP CHORD PANEL POINT. PLACE ONE SUPPORT OR CURB AT A CHORD POINT AS SHOWN.
2. REINFORCE JOIST TOP CHORD WHERE HANGER IS CENTERED MORE THAN 6" FROM THE CENTERLINE OF THE JOIST PANEL POINT (D=6") AND THE HANGER LOAD EXCEEDS 250 POUNDS.
3. REINFORCE JOIST BOTTOM CHORD WHERE HANGER IS CENTERED MORE THAN 6" FROM THE CENTERLINE OF THE JOIST PANEL POINT (D=6") AND THE HANGER LOAD EXCEEDS 150 POUNDS.
4. UNLESS OTHERWISE NOTED, HANGER LOADS LESS THAN 250 POUNDS ATTACHED TO THE TOP CHORD DO NOT REQUIRE JOIST REINFORCEMENT.
5. UNLESS OTHERWISE NOTED, HANGER LOADS LESS THAN 150 POUNDS ATTACHED TO THE BOTTOM CHORD DO NOT REQUIRE JOIST REINFORCEMENT.
6. L2"x2" REINFORCEMENT WHERE REQUIRED SHALL EXTEND FROM HANGER LOCATION ON ONE CHORD TO THE NEAREST PANEL POINT ON THE OPPOSITE CHORD.
7. REINFORCEMENT REQUIRED FOR HUNG EQUIPMENT SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. ALL OTHER REINFORCEMENT SHALL BE PROVIDED BY THE STRUCTURAL STEEL CONTRACTOR.

WALL BRACING & SHEAR WALL SHEATHING SPECIFICATIONS

1. ALL EXTERIOR WALL SHEATHING SHALL BE ½" OSB OR ⅜" PLYWOOD. FASTEN SHEATHING W/ 10d NAILS @ 6" O.C. AT EDGES & @ 12" O.C. IN THE PANEL FIELD, TYP. U.N.O.

STRUCTURAL SYMBOLS

- DIMENSIONAL LUMBER
- WOOD BLOCKING
- FINISH WOOD
- STEEL OR METAL
- CONCRETE BLOCK - HOLLOW OR SOLID
- FACE OR COMMON BRICK
- RIGID INSULATION
- BATT OR BLANKET INSULATION
- PLYWOOD
- EARTH, FILL OR BACKFILL
- SAND OR GROUT
- CONCRETE
- STONE
- BEARING PLATE MARK - SEE SCHEDULE
- COLUMN MARK - SEE SCHEDULE
- EMBED PLATE MARK - SEE SCHEDULE
- FOOTING MARK - SEE SCHEDULE
- KEY NOTES - SPECIFIC NOTES KEYED TO AN ELEMENT OR AREA, SEE SCHEDULE
- LINTEL MARK - SEE SCHEDULE
- PIER MARK - SEE SCHEDULE
- REVISION MARK - INDICATES A CHANGE AFTER CONTRACT DOCUMENT ISSUE
- SHEAR WALL MARK - SEE SCHEDULE
- WALL REINFORCING MARK - SEE SCHEDULE
- ELEVATION CHANGE
- GRID BUBBLE
- MATCH LINE
- BREAK LINE
- DIRECTION OF SLOPE
- STEEL BEAM SPLICE
- STEEL BEAM CONTINUOUS OVER SUPPORT
- MOMENT CONNECTION FOR STEEL BEAMS
- SPAN OF STRUCTURAL ELEMENT
- REINFORCING STEEL SPAN
- DIMENSION LINES
- MATERIAL LIMIT LINES
- MATERIAL NOT INCLUDED IN LIMIT LINES
- FOOTING STEP

STRUCTURAL ABBREVIATIONS

ADD'L	Additional
@	At
&	And
ANCH	Anchor
AB	Anchor Bolt
L	Angle
ALT	Alternate
ARCH	Architect or Architectural
BSMT	Basement
BM	Beam
BRG	Bearing
BNT	Bent
BTWN or BET	Between
BLK	Block
BB	Bond Beam / Lintel Beam
BOT or BTM	Bottom
Brkt	Bracket
Bldg	Building
Cant	Cantilever
CLG	Ceiling
CTR	Center
CTR'D	Centered
CL	Center Line
C	Channel
CLR	Clear
COL	Column
COMP	Composite
CONC	Concrete
CMU	Concrete Masonry Unit
COND	Condition
CONN	Connection
CONST	Construction
CJ	Control Joint
CONT	Continuous
CONTR	Contractor
DEBA	Deformed Bar Anchor
DL	Dead Load
DEFL	Deflection
DTL or DET	Detail
DIA	Diameter
DIAG	Diagonal
DIM	Dimension
DWL(s)	Dowel(s)
DWG(s) / DRWG	Drawing(s)
EA	Each
EF	Each Face
EW	Each Way
E-W	East - West
E	East
Fe	Effective Force (P.T.)
ELEC	Electrical
EL	Elevation
ELEV	Elevator
EQ	Equal
EXP	Expansion
EJ or EXP JT	Expansion Joint
EXT	Extend or Exterior
FF	Far Face
FV	Field Verify
FLG	Flange
FLR	Floor
FT	Foot
FTG	Footing
FDN	Foundation
GALV	Galvanized
GA	Gauge
GC	General Contractor
GL or GLU-LAM	Glue Laminated Wood
HP	H Shaped Column
HP	High Point
HS	Headed Stud(s)
HSS	Hollow Structural Shape
HK	Hook
HORIZ	Horizontal
IN	Inch
INFO	Information
ID	Inside Diameter
IF	Inside Face
INSUL	Insulation
INT	Interior
JT	Joint
JST(s)	Joist(s)
K	Kips
KIP	1 Kip = 1,000 lbs
K-FT	Kips per Foot
KSF	Kips per Square Foot
KSI	Kips per Square Inch
LW	Light Weight
LTL	Lintel
LL	Live Load
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
LP	Low Point
LSH	Long Side Horizontal
LSL	Laminated Strand Lumber
LSV	Long Side Vertical
LVL	Laminated Veneer Lumber
MFG	Manufacturer / Manufacturing
MAS	Masonry
MO	Masonry Opening
MAT	Material
MAX	Maximum
MECH	Mechanical
MBR	Member
MEZZ	Mezzanine
MIN	Minimum
MISC	Miscellaneous
MC	Miscellaneous Channel
M	Moment
MPH	Miles per Hour
NF	Near Face
N	North
N-S	North - South
NOM	Nominal
NTS	Not To Scale
NO or #	Number
OC	On Center
OPNG or OPG	Opening
OPP	Opposite
OD	Outside Diameter
OF	Outside Face
/	Per
PCF	Pounds per Cubic Foot
PLK	Plank
PL	Plate
PT	Post Tension(ing)
#	Pound
PSF	Pound per Square Foot
PSI	Pound per Square Inch
PSL	Parallel Strand Lumber
PC	Precast
RFG	Reinforcing
REINF	Reinforcing or Reinforce
REBAR	Reinforcing Bar
REQ'D	Required
REV	Reverse
RD	Roof Drain
SCHED or SCH	Schedule
SEC	Section
V	Shear
SHT	Sheet
SIM	Similar
SOG	Slab on Grade
S	South
SPS	Spaces
SPEC	Specification
SQ	Square
STAGG	Stagger
STD	Standard
STL	Steel
STRUCT or STR	Structure
SUPP	Support
TEMP	Temporary or Temperature
THRU	Through
T&B	Top and Bottom
TOB	Top of Beam
TOF	Top of Footing
TOS	Top of Slab
TYP	Typical
UN	Unless Noted
UNO	Unless Noted Otherwise
VER	Verify
VERT	Vertical
VIF	Verify in Field
WWF	Welded Wire Fabric
W	West or Wide Flange
WND	Window
W/	With
W/O	Without
WD	Wood

SHEET LIST

GENERAL NOTES

1. THESE NOTES ARE PROVIDED FOR TYPICAL CONDITIONS. SEE PLANS AND DETAILS FOR SPECIFIC REQUIREMENTS IN OTHER AREAS.
2. VERIFY ALL DIMENSIONS, ELEVATIONS, AND DETAIL OF EXISTING STRUCTURE WHERE THEY AFFECT THIS CONSTRUCTION.
3. NOTIFY ENGINEER IF THERE ARE ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS.
4. OBTAIN PROPER APPROVAL FROM STRUCTURAL ENGINEER BEFORE CUTTING OPENINGS OR RECESS OR MAKING OTHER MODIFICATIONS TO EXISTING STRICTURE NOT SHOWN ON THE STRUCTURAL DRAWINGS.
5. VERIFY ALL DEPRESSIONS, DIMENSIONS, ELEVATIONS, OPENINGS, EQUIPMENT SUPPORTS, AND DETAILS AND COORDINATE BY REFERENCE TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
6. VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS, STRUCTURAL DRAWINGS DO NOT NECESSARILY SHOW ALL OPENINGS.
7. PLACE OPENINGS IN FLOOR AND ROOF NOT SHOWN ON STRUCTURAL DRAWINGS BETWEEN STRUCTURAL MEMBERS. NOTIFY STRUCTURAL ENGINEER BEFORE OPENINGS LARGER THAN 12" IN ANY DIMENSION ARE ADDED.
8. OBTAIN PRIOR APPROVAL FROM STRUCTURAL ENGINEER BEFORE MAKING ANY OPENINGS THROUGH STRUCTURAL MEMBERS IF THE OPENINGS ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS.
9. THIS STRUCTURE IS A NON-SELF-SUPPORTING WOOD FRAME THAT REQUIRES INTERACTION WITH SLABS, FLOOR SHEATHING, AND WOOD SHEAR WALLS TO PROVIDE THE REQUIRED LATERAL STABILITY. PROVIDE REQUIRED TEMPORARY BRACING UNTIL PERMANENT BRACING, FLOORS, AND WALL ARE IN PLACE.
10. PROVIDE TEMPORARY BRACING FOR ALL WALLS (CONCRETE, MASONRY, COLD FORMED STEEL, OR WOOD) UNTIL THEY ARE OF ADEQUATE DESIGN STRENGTH AND ARE PROPERLY ANCHORED IN FINAL
11. THE DESIGN OF STUD WALL FRAMING IS FOR THE COMPLETED, SHEATHED CONDITIONS, INCLUDING PROPER FASTENING. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF TEMPORARY BRACING. IF THE CONTRACT ELECTS TO PLACE WALL SHEATHING OR FLOOR TOPPING ON ANY LEVELS ABOVE STUD WALLS THAT DO NOT YET HAVE SHEATHING, ONE OF THE FOLLOWING ARE REQUIRED PRIOR TO SUCH PLACEMENT:
    11.1. PROVIDE BLOCKING MATCHING THE SIZE AND SPECIES OF STUDS AT MID-HEIGHT OF ALL LOAD BEARING STUD WALLS AT THE BOTTOM THREE LEVELS IN FIVE LEVEL WOOD STRICTURES AND AL THE BOTTOM TWO LEVELS IN FOUR LEVEL WOOD STRICTURES, EXCEPT THAT WALLS WITH DOUBLE OR TRIPLED SUDS FASTENED WITH 10d NAILS AT 8" O.C. STAGGERED DO NOT REQUIRE BLOCKING. BLOCKING REQUIRED BY THE SHEAR WALL SCHEDULE IS NOT ELIMINATE BY THE ABOVE NAILING PATTERN
    11.2. RETAIN A SPECIALITY STRUCTURAL ENGINEER TO EVALUATE THE ADEQUACY OF TEMPORARY UNBRACED STUD WALL CALCULATIONS, DESIGN RELATED BRACING FOR THE CONDITIONS, AND SUBMIT SIGNED/VERIFIED CALCULATIONS AND DRAWINGS FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD AND ARCHITECT.

CODE NOTES

CODE REFERENCE AND DESIGN CRITERIA:

THE FOLLOWING CODES AND REFERENCES WERE USED FOR THIS PROJECT:

1. 2015 INTERNATIONAL BUILDING CODE
2. AMERICAN CONCRETE INSTITUTE (ACI) 318-14 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
3. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) - STEEL CONSTRUCTION MANUAL - FOURTEENTH EDITION
4. ASCE STANDARD ASCE/SEI 7-10

DESIGN CRITERIA

PUBLIC AREA LIVE LOAD	100 PSF
PUBLIC AREA DEAD LOAD	20 PSF
STAIRS LIVE LOAD	100 PSF
MECHANICAL ATTIC SPACE LIVE LOAD	100 PSF
ELEVATED PATIO LIVE LOAD	100 PSF
ELEVATED PATIO DEAD LOAD	25 PSF
ROOF LIVE LOAD	20 PSF
STEEL BEAM DESIGN METHOD:	ALLOWABLE STRENGTH DESIGN (ASD)
STEEL COLUMN DESIGN METHOD:	ALLOWABLE STRENGTH DESIGN (ASD)
FOUNDATION DESIGN METHOD:	LOAD RESISTANCE FACTOR DESIGN (LRFD)
ALLOWABLE SOIL BEARING PRESSURE	GEOTECHNICAL REPORTED 3,000 PSF

WIND LOADS PER IBC 2015 (ASCE 7-10)

115 MPH, EXPOSURE (3 SEC GUST)	B
IMPORTANCE FACTOR	1.00
INTERNAL PRESSURE COEFFICIENT	±0.18

SNOW LOADS PER IBC-2015 (ASCE 7-10)

GROUND SNOW LOAD Pg	25 PSF
FLAT ROOF SNOW LOAD Pf	20 PSF
IMPORTANCE FACTOR	1.00

LIMIT DEFLECTIONS TO THE FOLLOWING:

ROOF	
L/180	TOTAL LOAD
L/240	LIVE LOADS
FLOORS	
L/360	TOTAL LOAD
L/480	LIVE LOADS
STEEL BEAMS (FLOOR)	
L/360	TOTAL LOAD
L/480	LIVE LOADS
STEEL BEAMS (ELEVATED PATIO)	
L/480	TOTAL LOAD
L/600	LIVE LOADS

SEISMIC LOADS PER IBC-2015 (ASCE 7-10)

SEISMIC IMPORTANCE FACTOR	1.00
OCCUPANCY CATEGORY	II
S_{DS}:	0.207
S_1:	0.061
SITE CLASS	D
S_{DS}	0.221
S_{D1}	0.098
SEISMIC DESIGN CATEGORY	B
SEISMIC FORCE RESISTING SYSTEM	LIGHT-FRAME WALLS RATED FOR SHEAR RESISTANCE
RESPONSE COEFFICIENT C_S	0.04
RESPONSE MODIFICATION FACTOR	6½
ANALYSIS PROCEDURE	EQ. LATERAL FORCE DESIGN PROC.

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS

Date	No.	Description	chk'd by

SEAL:

DRAWING NAME: COVER SHEET

WOODLANDS AT GREYSTONE
SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

LOCATION:

Project number: SFA-1905	drawn by: RCH
date: 2020-09-04	chk'd by: RCH
scale: AS NOTED	approv. by: RCH

sheet no.

S0.0

SPECIAL INSPECTIONS

1. Special inspections shall be performed in accordance with Section 1704 of 2015 IBC. An independent testing agency shall be employed to provide Special Inspections during construction on the types of work listed under Section 1704. The following areas of work require Special Inspections in accordance with 2015 IBC.
2. Refer to project specification for additional quality control/quality assurance requirements.
3. Construction Manager/Contractor shall coordinate any additional special inspection requirements with the Owner and applicable building authorities.
4. Special inspections are not the responsibility of the Structural Engineer of Record.

STRUCTURAL STEEL

(IBC 1704.3, 1707.2, & 1708.3)

AFTER WELDING (TABLE N5.4-3, AISC 360):

Verification & Inspection	Continuous	Periodic	Detailed Instructions
Welds cleaned		X	Verify that welds have been properly cleaned.
Size, length, and location of welds		X	-----
Welds meet visual acceptance criteria		X	-----

AFTER BOLTING (TABLE N5.6-3, AISC 360):

Verification & Inspection	Continuous	Periodic	Detailed Instructions
Document acceptance or rejection of bolted connections	X	-----	-----

OTHER STEEL INSPECTIONS (SECTION N5.7, AISC 360; Tables J8-1 & J10-1, AISC 341):

Verification & Inspection	Continuous	Periodic	Detailed Instructions
Structural steel details	-----	X	All fabricated steel or steel frames shall be inspected to verify compliance with the details shown in the construction documents, such as braces, stiffeners, member locations, and proper application of joint details at each connection.
Anchor rods and other embedments supporting structural steel	-----	X	Shall be on the premises during the placement of anchor rods and other embedments supporting structural steel for compliance with construction documents. Verify the diameter, grade, type, and length of the anchor rod or embedded item, and the extent or depth of embedment prior to placement of concrete.

STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

(IBC 1705.2.2)

STEEL ROOF AND FLOOR DECKS (IBC TABLE 1705.2.2):

Verification & Inspection	Continuous	Periodic	Detailed Instructions
Material verification of cold-formed steel deck	-----	X	Confirm that identification markings are provided to conform to ASTM standards specified on construction documents.
Floor and roof deck welds	-----	X	Visual inspection is required to confirm that weld meets acceptance criteria of AWS D1.3. Welder qualifications should also be verified.

CONCRETE CONSTRUCTION

(IBC 1704.4 & 1708.2)

Verification & Inspection	Continuous	Periodic	Detailed Instructions
Reinforcing steel, including prestressing tendons	-----	X	Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Cast-in bolts & embeds	-----	X	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used.
Post-installed anchors or dowels	-----	X	All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report.
Use of required mix design	-----	X	Verify that all mixes used comply with the approved construction documents; ACI 318: Ch. 4, 5.2-5.4; and IBC 1904.2.2, 1913.2, 1913.3.
Concrete sampling for strength tests, slump, air content, and temperature	X	-----	-----
Formwork	-----	X	Verify that the forms are placed plumb and conform to the shapes, lines, and dimensions of the members as required by the approved construction documents.

SOILS CONSTRUCTION

(IBC 1704.7)

Verification & Inspection	Continuous	Periodic	Detailed Instructions
Verify subgrade is adequate to achieve design bearing capacity	-----	X	Prior to placement of concrete.
Verify excavations extend to proper depth and material	-----	X	Prior to placement of compacted fill or concrete.
Verify that subgrade has been appropriately prepared prior to placing compacted fill	-----	X	Prior to placement of compacted fill.
Perform classification and testing of compacted fill materials	-----	X	All materials shall be checked at each lift for proper classifications and gradations not less than once for each 10,000 sqft. of surface area.
Verify proper materials, densities and lift thicknesses during placement and compaction	-----	X	-----

MASONRY CONSTRUCTION

(IBC 1705.4)

PRIOR TO CONSTRUCTION (ARTICLE 1.15, TMS-602/ACI 530.1):

Verification & Inspection	Continuous	Periodic	Detailed Instructions
Review material certificates, mix designs, test results and construction procedures	-----	X	Verify that materials conform to the requirements of the approved construction documents. Mix design, test results, material certificates, and construction procedures should be submitted for review. Mortar mix designs shall conform to ASTM C 270 while grout shall conform to ASTM C 476. Material certificates shall be provided for the following: reinforcement; anchors, ties, fasteners, and metal accessories; masonry units; mortar and grout materials. Construction procedures for cold-weather or hot-weather construction shall be reviewed.

DURING MASONRY CONSTRUCTION:

Verification & Inspection	Continuous	Periodic	Detailed Instructions
Size and location of structural elements	-----	X	Verify the locations of structural elements with respect to the approved plans and confirm that tolerances meet the requirements of Article 3.3 F of TMS 602/ACI 530.1.
Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.	-----	X	Verify that correct anchorages and connections are provided per the approved plans and Sections 1.18.4.5 and 1.11.1 of TMS 402/ACI 530. Continuous inspection is required for Risk Category IV buildings.

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

FLUENT DESIGN GROUP, LLC
Engineering|Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS

Date	No.	Description	chk'd by

SEAL:

DRAWING NAME: SPECIAL INSPECTIONS

WOODLANDS AT GREYSTONE

SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

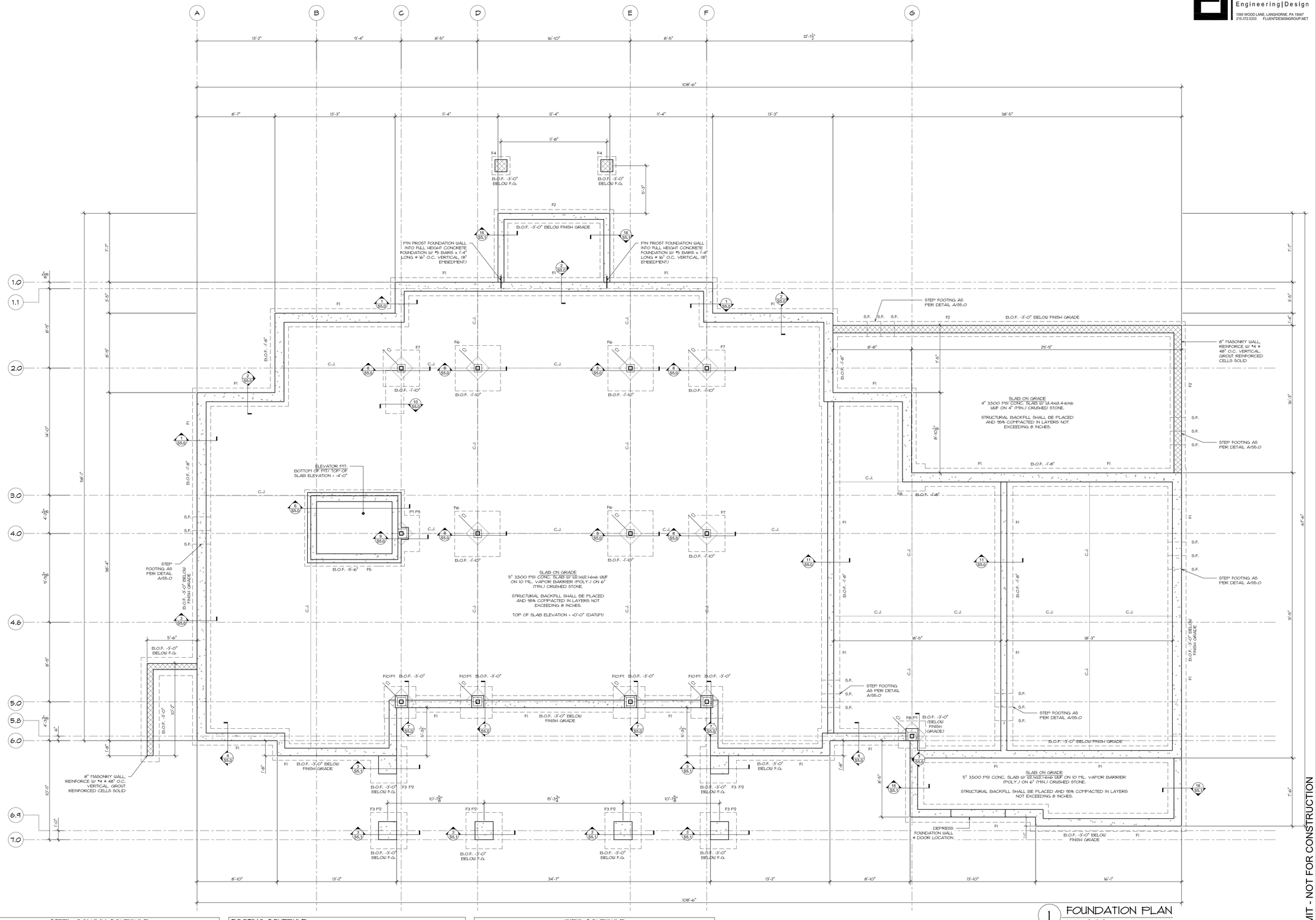
LOCATION:

Project number: SFA-1905	drawn by: RCH
date: 2020-09-04	chk'd by: RCH
scale: AS NOTED	approv. by: RCH

sheet no.

S0.1

FLUENT DESIGN GROUP, LLC
Engineering | Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET



STEEL COLUMN SCHEDULE

MARK	SIZE	BASE PLATE (WHERE REQUIRED)	REMARKS
C2	HSS4x4x3/8"	8"x7"x0'-11"	UPPER LEVEL
C1	HSS6x6x5/16"	2'-10"x2'-0"	LOWER LEVEL

UNLESS NOTED OTHERWISE:
1. PROVIDE 4-3/4Ø x '-6½" ANCHOR RODS W/ DOUBLE NUT, EXTEND 1'-0" INTO PIER.
2. PROVIDE 1" NON-SHRINK GROUT BELOW BASE PLATE.
3. STEEL COLUMNS SHALL EXTEND FROM PIER/ FOOTING TO FLOOR BEARING ELEVATION. USE 1/4" COLUMN CAP PLATE AT TOP U.N.O.

FOOTING SCHEDULE

SOILS REPORT BEARING PRESSURE 3,000 PSF

MARK	FOOTING SIZE	REINFORCEMENT	COMMENTS
(6) #5 BOT.	8'-0" x 12" x CONT.	(3) #5 x CONT. & #4 @ 24" TRANS	TYPICAL EXT. WALL
F2	2'-0" x 12" x CONT.	(3) #4 x CONT.	-
F3	4'-0"x4'-0"x12"	(5) #5 BOT. E.W.	ELEVATED PATIO PIERS
F4	3'-0"x3'-0"x12"	(3) #4 BOT. E.W.	-
F5	11'-0"x8'-6"x18"	#5 @ 12" O.C. TOP & BOT. E.W.	ELEVATOR
F6	5'-0"x5'-0"x14"	(7) #5 BOT. E.W.	INTERIOR COLUMN
F7	4'-0"x4'-0"x14"	(6) #5 BOT. E.W.	INTERIOR COLUMN
F8	3'-0"x3'-0"x12"	(4) #5 BOT. E.W.	STEEL COLUMN
F9	4'-0"x4'-0"x18"	(6) #5 BOT. E.W.	-
F10	3'-6"x3'-6"x12"	(5) #5 BOT. E.W.	-

BOTTOM OF FOOTING (B.O.F.) ELEVATION = -3'-0" (U.N.O.) RELATIVE TO EXTERIOR GRADE

PIER SCHEDULE

MARK	SIZE	CONC.	MAS.	REINFORCING	REMARKS
P1	16"x16"	X		(8) #5 VERTICAL	
P2	24"x24"	X		(8) #5 VERTICAL	

TOP OF PIER ELEVATION = -0'-8" (U.N.O.) RELATIVE TO DATUM

PROPOSED WALLS
EXISTING WALLS
DEMOLISHED WALLS
OVERFRAMING (FIN. 24Ø @ 16" O.C.)
V-1.LOK SHEAR REACTION @ STEEL CONNECTION
BEAM/HEADER
BEARING WALL (BELOW)
BEARING WALL (ABOVE)
SHEAR WALL (ABOVE)
JOIST HANGER MARKER
No. OF REQ'D JACK STUDS
INDICATES EXTENT OF MEMBERS
INDICATES DIRECTION OF MEMBERS SPAN

1 FOUNDATION PLAN

SCALE 1/4" = 1'-0"

FOUNDATION NOTES:
1. SEE SHEET S0.0 FOR STRUCTURAL NOTES, ABBREVIATIONS AND SYMBOLS.
2. SEE SHEET S5.0 FOR TYPICAL FOOTING AND FOUNDATION DETAILS.
3. TOP OF SLAB ELEVATION = -0'-0"
4. BOTTOM OF EXTERIOR FOOTING ELEVATION (B.O.F.) AT WALL = -3'-0"
5. LAP REINFORCING AS FOLLOWS:
   #4=24"
   #5=24"
   PROVIDE #5 DOWELS FROM FOOTING INTO MASONRY WALLS. EXTEND DOWELS TO 3" CLEAR BOTTOM OF FOOTING. HOOK DOWELS AT BOTTOM OF FOOTING.
6. FOOTINGS FOR WALLS NOT NOTED SHALL BE 12" THICK WITH A MINIMUM PROJECTION OF 4" EACH SIDE. REINFORCING W/ 3-#5 CONTINUOUS, AND 1-#5 CONTINUOUS FOR EACH 4" WIDTH OVER 24". SEE S1.0 FOR DOWELS INTO PIERS.
7. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
8. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS AND PARTITIONS WALLS.
9. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS

Date	No.	Description	chk'd by

SEAL:

DRAWING NAME: FOUNDATION PLAN

WOODLANDS AT GREYSTONE

SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

LOCATION:

Project number: SFA-1905	drawn by: RCH
date: 2020-09-04	chk'd by: RCH
scale: AS NOTED	approv. by: RCH

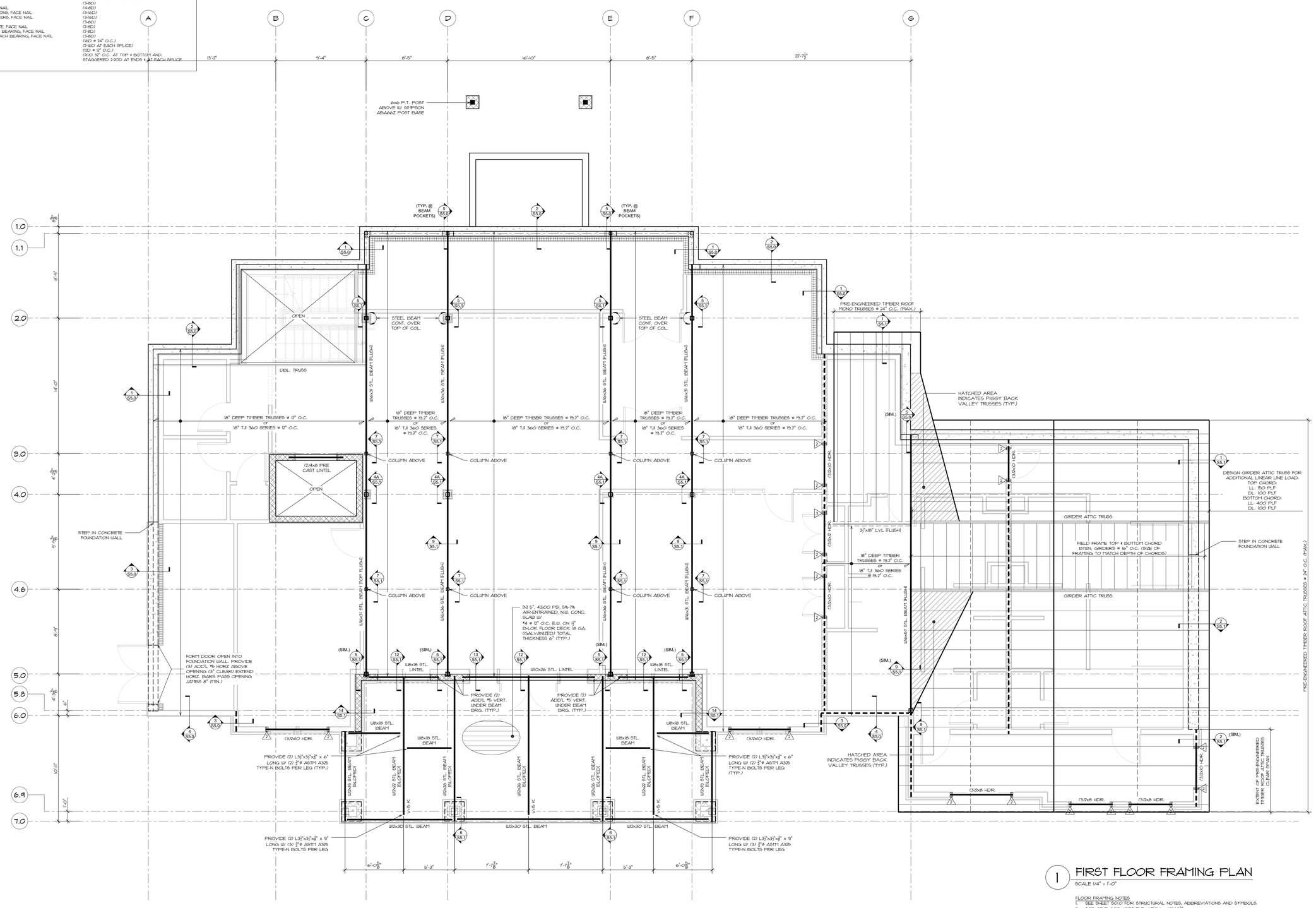
sheet no.

S1.0

CONNECTION TYPE:	NAILING PATTERN U.N.O. IN SECTIONS:
1. JOIST TO SILL OR GIRDER, TOENAIL	(3-8D)
2. BRIDGING TO JOIST, TOENAIL EACH END	(2-8D)
3. 1"x6", SUBFLOOR TO JOIST, FACE NAIL	(2-8D)
4. WIDER THAN 1"x6", SUBFLOOR TO JOIST, FACE NAIL	(3-8D)
5. 2" SUBFLOOR TO GIRDER, BLIND AND FACE NAIL	(2-16D)
6. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL	(16D @ 16" O.C.)
7. SOLE PLATE TO JOIST OR BLOCKING, AT BRACED W. PANELS	(3-16D PER 16")
8. TOP PLATE TO STUD, END NAIL	(2-16D)
9. STUD TO SOLE PLATE	(2-16D END NAIL)
10. DOUBLE STUDS, FACE NAIL	(16D @ 24" O.C.)
11. DOUBLE TOP PLATES, TYPICAL FACE NAIL	(16D @ 16" O.C.)
12. DOUBLE TOP PLATES, LAP SPLICE	(8-16D)
13. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	(3-8D)
14. RIM JOIST TO TOP PLATE, TOENAIL	(8D @ 6" O.C.)
15. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	(2-16D)
16. CONTINUOUS HEADER, TWO PIECES	(16D @ 16" O.C. ALONG EDGE)
17. CEILING JOISTS TO PLATE, TOENAIL	(3-8D)
18. CONTINUOUS HEADER TO STUD, TOENAIL	(4-8D)
19. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	(3-16D)
20. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3-16D)
21. RAFTER TO PLATE, TOENAIL	(3-8D)
22. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	(2-8D)
23. 1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	(2-8D)
24. WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	(3-8D)
25. BUILT-UP CORNER STUDS	(16D @ 24" O.C.)
26. 2" PLANKS	(2-16D AT EACH SPLICE)
27. 2x6 BOX BEAM / HEADER	(12D @ 12" O.C.)
28. BUILT-UP GIRDER AND BEAMS	(10D 32" O.C. AT TOP & BOTTOM AND STAGGERED 2-20D AT ENDS & AT EACH SPLICE

WOOD BEARING WALL SCHEDULE

FLOOR LEVEL	TYPICAL EXTERIOR WALL			TYPICAL INTERIOR BEARING WALLS		
	STUD SIZE & SPACING	STUD GRADE	PLATE GRADE	STUD SIZE & SPACING	STUD GRADE	PLATE GRADE
0	2x6 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2	2x4 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2
1	2x6 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2	2x4 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2



1 FIRST FLOOR FRAMING PLAN

SCALE 1/4" = 1'-0"

FLOOR FRAMING NOTES:
1. SEE SHEET SO.01 FOR STRUCTURAL NOTES, ABBREVIATIONS AND SYMBOLS.
2. TOP OF FLOOR JOIST ELEVATION = +0'-0⅜"
3. TOP OF STEEL ELEVATION = +0'-0⅜"
4. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS AND PARTITIONS WALLS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.

PROPOSED WALLS
EXISTING WALLS
DEMOLISHED WALLS
OVERFRAMING (MIN. 2x8 @ 16" O.C.)
V=1.0K SHEAR REACTION @ STEEL CONNECTION
BEAM/HEADER
BEARING WALL (BELOW)
BEARING WALL (ABOVE)
SHEAR WALL (ABOVE)
J L JOIST HANGER MARKER
No. OF REQ'D JACK STUDS
INDICATES EXTENT OF MEMBERS
INDICATES DIRECTION OF MEMBERS SPAN

STEEL COLUMN SCHEDULE

MARK	SIZE	BASE PLATE (WHERE REQUIRED)	REMARKS
C2	HSS4x4x4x3/8"	8"x7½"x0'-11"	UPPER LEVEL
C1	HSS6x6x5x5/16"	2'-0"x2'-0"x0'-12"	LOWER LEVEL

UNLESS NOTED OTHERWISE:
1. PROVIDE 4-3/4"x 1'-6½" ANCHOR RODS W/ DOUBLE NUT, EXTEND 1'-0" INTO PIER.
2. PROVIDE 1" NON-SHRINK GROUT BELOW BASE PLATE.
3. STEEL COLUMNS SHALL EXTEND FROM PIER/ FOOTING TO FLOOR BEARING ELEVATION. USE 1/4" COLUMN CAP PLATE AT TOP U.N.O.

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

FLUENT DESIGN GROUP, LLC
Engineering|Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS

Date	No.	Description	chk'd by

SEAL:

DRAWING NAME: FIRST FLOOR FRAMING PLAN

WOODLANDS AT GREYSTONE

SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

LOCATION:

Project number:	drawn by:
SFA-1905	RCH
date:	chk'd by:
2020-09-04	RCH
scale:	approv. by:
AS NOTED	RCH

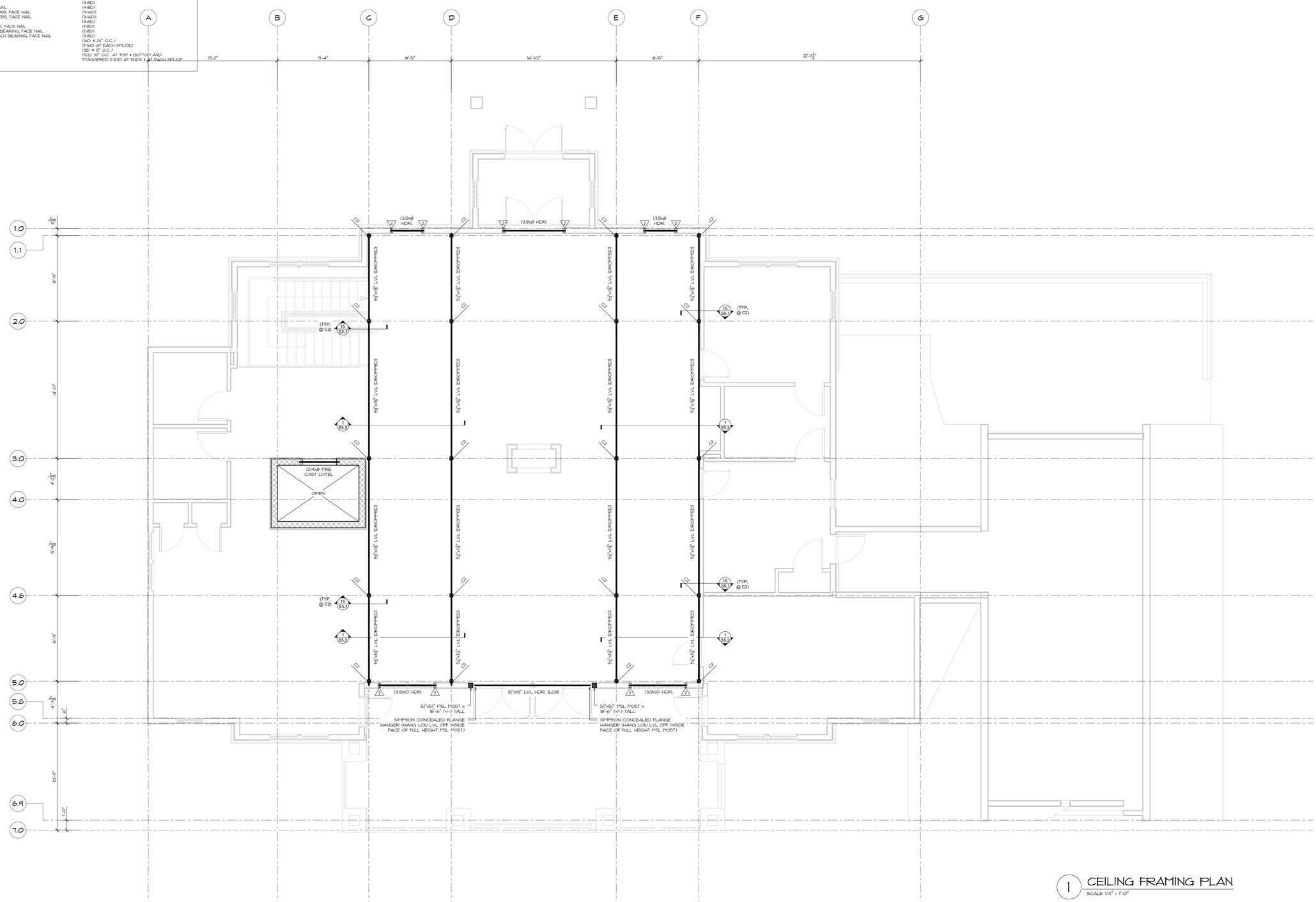
sheet no.

S1.1

CONNECTION TYPE:	NAILING PATTERN U.N.O. IN SECTIONS:
1. JOIST TO SILL OR GIRDER, TOENAIL	(3-8D)
2. BRIDGING TO JOIST, TOENAIL EACH END	(2-8D)
3. 1"x6", SUBFLOOR TO JOIST, FACE NAIL	(2-8D)
4. WIDER THAN 1"x6", SUBFLOOR TO JOIST, FACE NAIL	(3-8D)
5. 2" SUBFLOOR TO GIRDER, BLIND AND FACE NAIL	(2-16D)
6. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL	(16D @ 16" O.C.)
7. SOLE PLATE TO JOIST OR BLOCKING, AT BRACED W. PANELS	(3-16D PER 16')
8. TOP PLATE TO STUD, END NAIL	(2-16D)
9. STUD TO SOLE PLATE	(2-16D END NAIL)
10. DOUBLE STUDS, FACE NAIL	(16D @ 24" O.C.)
11. DOUBLE TOP PLATES, TYPICAL FACE NAIL	(16D @ 16" O.C.)
12. DOUBLE TOP PLATES, LAP SPLICE	(8-16D)
13. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	(3-8D)
14. RIM JOIST TO TOP PLATE, TOENAIL	(8D @ 6" O.C.)
15. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	(2-16D)
16. CONTINUOUS HEADER, TWO PIECES	(16D @ 16" O.C. ALONG EDGE)
17. CEILING JOISTS TO PLATE, TOENAIL	(3-8D)
18. CONTINUOUS HEADER TO STUD, TOENAIL	(4-8D)
19. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	(3-16D)
20. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3-16D)
21. RAFTER TO PLATE, TOENAIL	(3-8D)
22. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	(2-8D)
23. 1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	(2-8D)
24. WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	(3-8D)
25. BUILT-UP CORNER STUDS	(16D @ 24" O.C.)
26. 3" PLANKS	(2-16D AT EACH SPLICE)
27. 2x6 BOX BEAM / HEADER	(2D @ 12" O.C.)
28. BUILT-UP GIRDER AND BEAMS	(2OD 32" O.C. AT TOP & BOTTOM AND STAGGERED 2-20D AT ENDS & AT EACH SPLICE

WOOD BEARING WALL SCHEDULE

FLOOR LEVEL	TYPICAL EXTERIOR WALL			TYPICAL INTERIOR BEARING WALLS		
	STUD SIZE & SPACING	STUD GRADE	PLATE GRADE	STUD SIZE & SPACING	STUD GRADE	PLATE GRADE
0	2x6 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2	2x4 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2
1	2x6 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2	2x4 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2



1 CEILING FRAMING PLAN

SCALE 1/4" = 1'-0"

ROOF FRAMING NOTES:
1. SEE SHEET S0.0 FOR STRUCTURAL NOTES, ABBREVIATIONS AND SYMBOLS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS AND PARTITIONS WALLS.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.

PROPOSED WALLS
EXISTING WALLS
DEMOLISHED WALLS
OVERFRAMING (MIN. 2x8 @ 16" O.C.)
V=1.0K SHEAR REACTION @ STEEL CONNECTION
BEAM/HEADER
BEARING WALL (BELOW)
BEARING WALL (ABOVE)
SHEAR WALL (ABOVE)
JOIST HANGER MARKER
No. OF REQ'D JACK STUDS
INDICATES EXTENT OF MEMBERS
INDICATES DIRECTION OF MEMBERS SPAN

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

FLUENT DESIGN GROUP, LLC
Engineering|Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS

Date	No.	Description	chk'd by

SEAL:

DRAWING NAME: CEILING FRAMING PLAN

WOODLANDS AT GREYSTONE

SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

LOCATION:

Project number:	drawn by:
SFA-1905	RCH
date:	chk'd by:
2020-09-04	RCH
scale:	approv. by:
AS NOTED	RCH

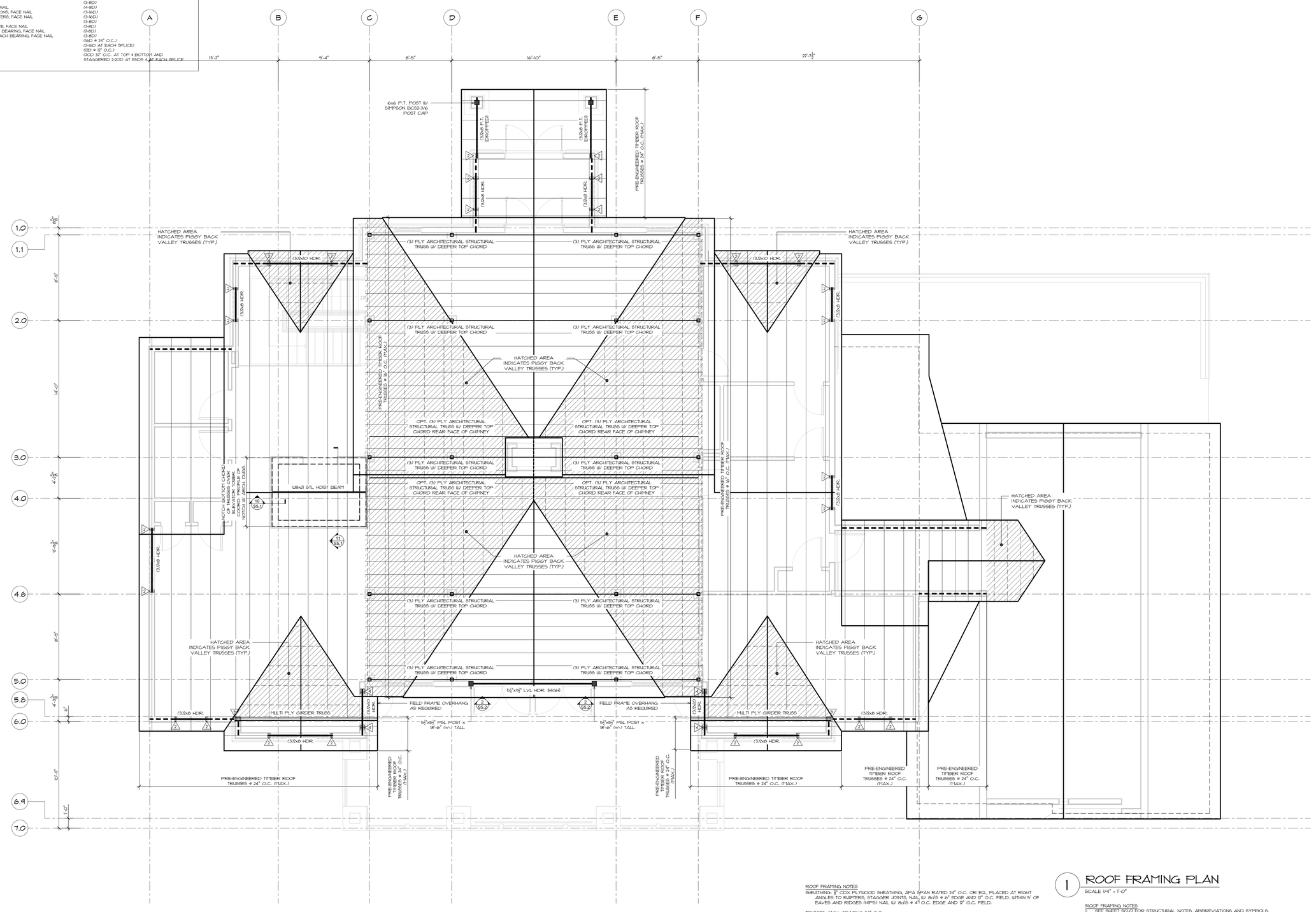
sheet no.

S1.2

CONNECTION TYPE:	NAILING PATTERN U.N.O. IN SECTIONS:
1. JOIST TO SILL OR GIRDER, TOENAIL	(3-8D)
2. BRIDGING TO JOIST, TOENAIL EACH END	(2-8D)
3. 1"x6", SUBFLOOR TO JOIST, FACE NAIL	(2-8D)
4. WIDER THAN 1"x6", SUBFLOOR TO JOIST, FACE NAIL	(3-8D)
5. 2" SUBFLOOR TO GIRDER, BLIND AND FACE NAIL	(2-16D)
6. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL	(16D @ 16" O.C.)
7. SOLE PLATE TO JOIST OR BLOCKING, AT BRACED W. PANELS	(3-16D PER 16")
8. TOP PLATE TO STUD, END NAIL	(2-16D)
9. STUD TO SOLE PLATE	(2-16D END NAIL)
10. DOUBLE STUDS, FACE NAIL	(16D @ 24" O.C.)
11. DOUBLE TOP PLATES, TYPICAL FACE NAIL	(16D @ 16" O.C.)
12. DOUBLE TOP PLATES, LAP SPLICE	(8-16D)
13. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	(3-8D)
14. RIM JOIST TO TOP PLATE, TOENAIL	(8D @ 6" O.C.)
15. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	(2-16D)
16. CONTINUOUS HEADER, TWO PIECES	(16D @ 16" O.C. ALONG EDGE)
17. CEILING JOISTS TO PLATE, TOENAIL	(3-8D)
18. CONTINUOUS HEADER TO STUD, TOENAIL	(4-8D)
19. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	(3-16D)
20. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3-16D)
21. RAFTER TO PLATE, TOENAIL	(3-8D)
22. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	(2-8D)
23. 1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	(2-8D)
24. WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	(3-8D)
25. BUILT-UP CORNER STUDS	(16D @ 24" O.C.)
26. 2" PLANKS	(2-16D AT EACH SPLICE)
27. 2x6 BOX BEAM / HEADER	(12D @ 12" O.C.)
28. BUILT-UP GIRDER AND BEAMS	(20D 32" O.C. AT TOP & BOTTOM AND STAGGERED 2-20D AT ENDS & AT EACH SPLICE

WOOD BEARING WALL SCHEDULE

FLOOR LEVEL	TYPICAL EXTERIOR WALL			TYPICAL INTERIOR BEARING WALLS		
	STUD SIZE & SPACING	STUD GRADE	PLATE GRADE	STUD SIZE & SPACING	STUD GRADE	PLATE GRADE
0	2x6 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2	2x4 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2
1	2x6 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2	2x4 @ 16"O.C.	HEM-FIR NO. 2	HEM-FIR NO. 2



PROPOSED WALLS
EXISTING WALLS
DEMOLISHED WALLS
OVERFRAMING (TYP. 2x8 @ 16" O.C.)
V=1.0K SHEAR REACTION @ STEEL CONNECTION
BEAM/HEADER
BEARING WALL (BELOW)
BEARING WALL (ABOVE)
SHEAR WALL (ABOVE)
J L JOIST HANGER MARKER
No. OF REQ'D JACK STUDS
INDICATES EXTENT OF MEMBERS
INDICATES DIRECTION OF MEMBERS SPAN

ROOF FRAMING NOTES
SHEATHING: ¾" CDX PLYWOOD SHEATHING, APA SPAN RATED 24" O.C. OR EQ., PLACED AT RIGHT ANGLES TO RAFTERS, STAGGER JOINTS, NAIL W/ 8d'S @ 6" EDGE AND 12" O.C. FIELD, WITHIN 5' OF EAVES AND RIDGES (MIN'S) NAIL W/ 8d'S @ 4" O.C. EDGE AND 12" O.C. FIELD.

TRUSSES: MAX. SPACING 24" O.C.,
PROVIDE TYP. H8 HURRICANE TIE (OR APPROVED EQUAL) @ EA. END OF TRUSSES (TYP.)
CONSULT ARCH. FOR ROOF AND CEILING PROFILES
TRUSS MANUFACTURER (TM) TO DETERMINE SPACING BASED ON LOADING, OPENINGS, ETC.
TM TO SPECIFY REQUIRED BRACING, HANGERS AND CONNECTORS (U.N.O.).

TRUSSES TO BE DESIGNED FOR THE FOLLOWING
MINIMUM LOADS (TM TO VERIFY ANY ADDITIONAL LOAD CASES):
TOP CHORD
DEAD LOAD 12 PSF + ACTUAL DL FOR ANY OVER FRAMING
LIVE LOAD 20 PSF
SNOW LOAD 30 PSF
BOTTOM CHORD
DEAD LOAD 15 PSF
LIVE LOAD 100 PSF MECHANICAL ATTIC SPACE

1 ROOF FRAMING PLAN

SCALE 1/4" = 1'-0"

ROOF FRAMING NOTES
1. SEE SHEET S0.0 FOR STRUCTURAL NOTES, ABBREVIATIONS AND SYMBOLS.
2. ROOF TRUSS BEARING ELEVATION = 0'-0"
3. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RAMPS AND PARTITIONS WALLS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

FLUENT DESIGN GROUP, LLC
Engineering|Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS

Date	No.	Description	chk'd by

SEAL:

DRAWING NAME: ROOF FRAMING PLAN

WOODLANDS AT GREYSTONE

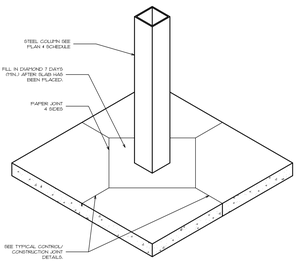
SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

LOCATION:

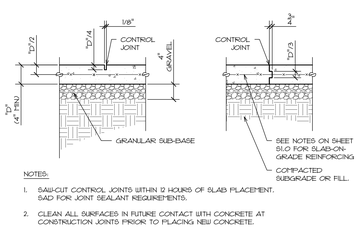
Project number:	drawn by:
SFA-1905	RCH
date:	chk'd by:
2020-09-04	RCH
scale:	approv. by:
AS NOTED	RCH

sheet no.

S1.3

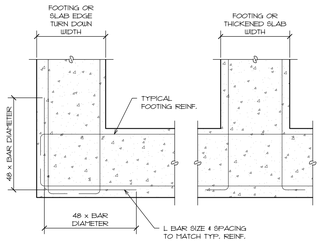


D ISOMETRIC STEEL COLUMN DETAIL
SCALE 1/2" = 1'-0"

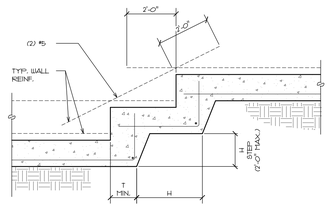


NOTES:
1. SAW-CUT CONTROL JOINTS WITHIN 12 HOURS OF SLAB PLACEMENT. SAID FOR JOINT SEALANT REQUIREMENTS.
2. CLEAN ALL SURFACES IN FUTURE CONTACT WITH CONCRETE AT CONSTRUCTION JOINTS PRIOR TO PLACING NEW CONCRETE.

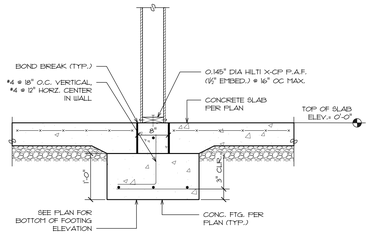
C CONSTRCUTION JOINT & CONTROL JOINT DETAIL
SCALE 3/4" = 1'-0"



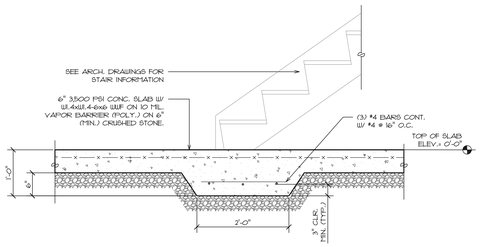
B FOOTING INTERSECTION PLAN DETAIL
SCALE 3/4" = 1'-0"



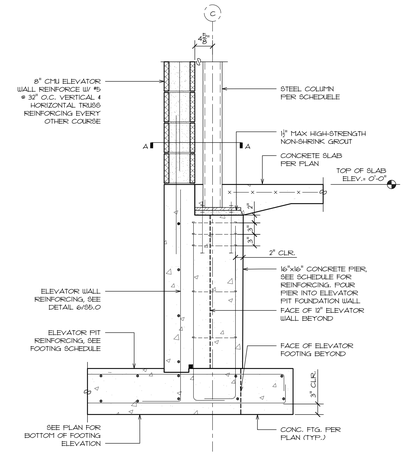
A STEPPED FOOTING DETAIL
SCALE 3/4" = 1'-0"



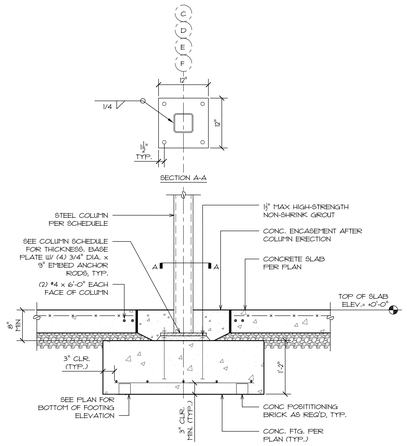
11 INTERIOR BEARING WALL FOUNDATION DETAIL
SCALE 3/4" = 1'-0"



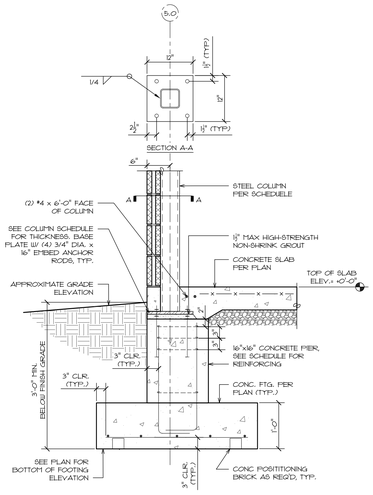
10 STAIR FOUNDATION DETAIL
SCALE 3/4" = 1'-0"



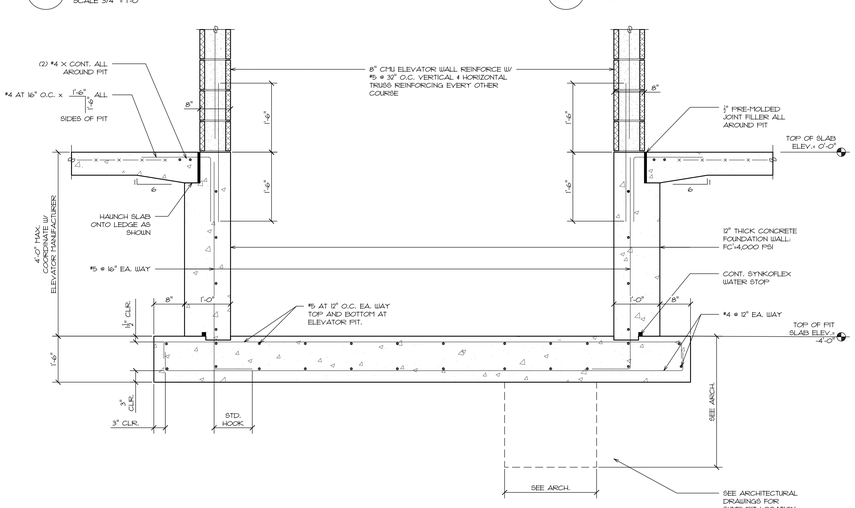
INTERIOR STL. COL. FOUNDATION DETAIL
SCALE 3/4" = 1'-0"



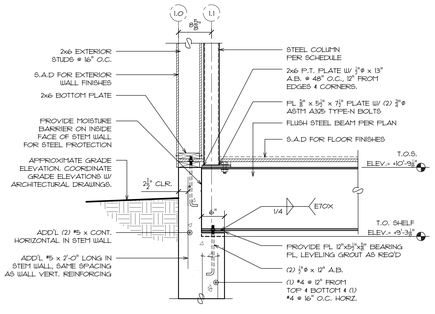
INTERIOR STL. COL. FOUNDATION DETAIL
SCALE 3/4" = 1'-0"

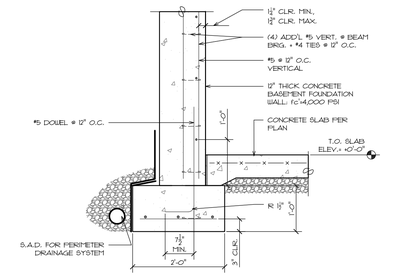


EXTERIOR STL. COL. FOUNDATION DETAIL
SCALE 3/4" = 1'-0"

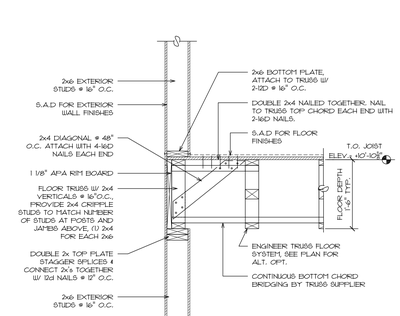


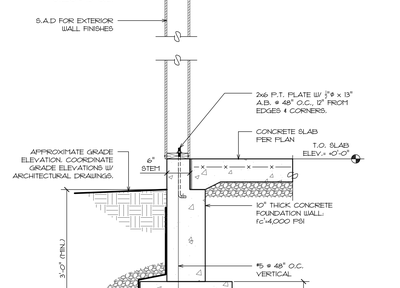
6 ELEVATOR FOUNDATION DETAIL
SCALE 3/4" = 1'-0"



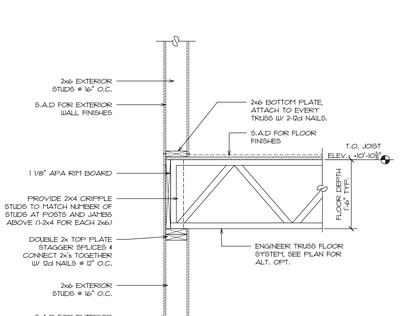


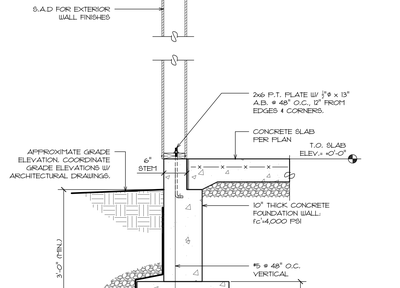
5 FOUNDATION DETAIL
SCALE 3/4" = 1'-0"



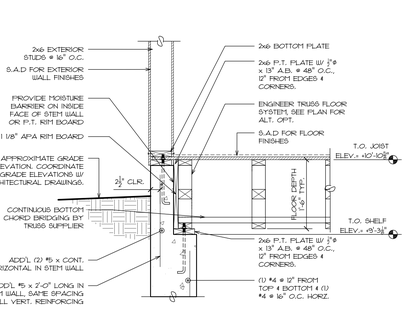


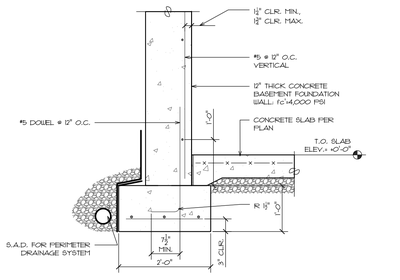
4 FOUNDATION DETAIL [TRUSS PARALLEL ELSE SAME AS 3]
SCALE 3/4" = 1'-0"



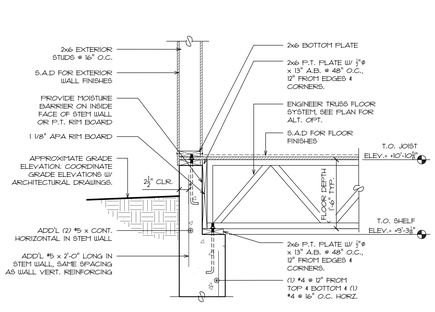


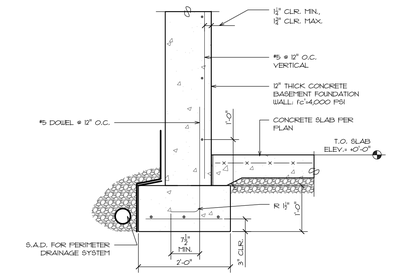
3 FOUNDATION DETAIL [TRUSS PERPENDICULAR ELSE SAME AS 4]
SCALE 3/4" = 1'-0"





2 FOUNDATION DETAIL [TRUSS PARALLEL ELSE SAME AS 1]
SCALE 3/4" = 1'-0"





1 FOUNDATION DETAIL [TRUSS PERPENDICULAR ELSE SAME AS 2]
SCALE 3/4" = 1'-0"

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

FLUENT DESIGN GROUP, LLC
Engineering|Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS

No.	Description	Date	chk'd by

SEAL:

DRAWING NAME: STRUCTURAL FOUNDATION DETAILS

WOODLANDS AT GREYSTONE
SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

LOCATION:

Project number:	drawn by:
SFA-1905	RCH
date: 2020-09-04	chk'd by: RCH
scale: AS NOTED	approv. by: RCH

sheet no.

S5.0

ALLOWABLE HOLES - TJI Joists

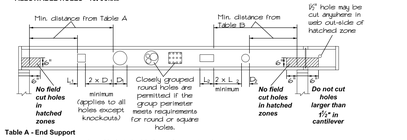


Table A - End Support

Minimum distance from edge of hole to inside face of nearest end support

JOIST DEPTH	TJI®	ROUND HOLE SIZE							SQUARE OR RECTANGULAR HOLE SIZE						
		4"	5"	6"	7"	8"	10"	12"	15"	17"	4"	5"	6"	7"	8"	10"	12"	15"	17"
18"	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	5'-8"	10'-0"		1'-0"	1'-0"	2'-0"	4'-0"	5'-0"	10'-0"	11'-0"	13'-6"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-4"	7'-0"	11'-0"		2'-0"	3'-6"	5'-0"	6'-6"	8'-0"	11'-0"	12'-0"	14'-6"	

Table B - Intermediate or Cantilever Support

Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support

JOIST DEPTH	TJI®	ROUND HOLE SIZE							SQUARE OR RECTANGULAR HOLE SIZE						
		4"	5"	6"	7"	8"	10"	12"	15"	17"	4"	5"	6"	7"	8"	10"	12"	15"	17"
18"	360	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	6'-0"	9'-0"	15'-0"		1'-0"	1'-0"	4'-0"	6'-0"	9'-0"	14'-0"	16'-6"	19'-6"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	6'-0"	10'-0"	16'-6"		1'-0"	1'-0"	6'-0"	8'-6"	11'-0"	16'-6"	18'-0"	20'-0"	

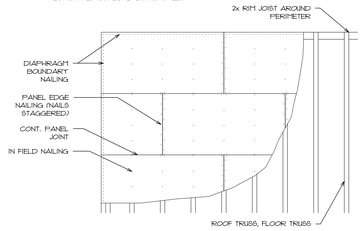
Rectangular holes based on measurement of longest side.

- Leave ⅛" of web (minimum) at top and bottom of hole. **DO NOT cut joist flanges.**
- Tables are based on uniform load tables in current design literature.
- For simple span (1 minimum), uniformly loaded joists used in residential applications, one maximum size round hole may be located at the center of the joist span **provided that no other holes occur in the joist.**

C TJI ALLOWABLE HOLE DIAGRAM
SCALE: N.T.S.

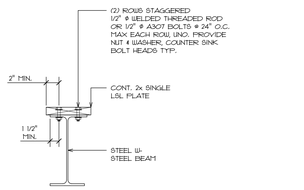
NAILING SCHEDULE		
LOCATION	ROOF	FLOOR
DIAPHRAGM BOUNDARY•	10d @ 6" o.c.	10d @ 6" o.c.
PANEL EDGES	10d @ 6" o.c.	10d @ 6" o.c.
CONT. PANEL JOINT	10d @ EA TRUSS	10d @ EA TRUSS
IN FIELD	PARALLEL TO TRUSS - 10d @ 12" o.c. PERP. TO TRUSS - 10d @ EA TRUSS	PARALLEL TO TRUSS - 10d @ 12" o.c. PERP. TO TRUSS - 10d @ EA TRUSS

• DIAPHRAGM BOUNDARY LOCATIONS INCLUDE THE FOLLOWING:
- PERIMETER OF THE BUILDING
- ALONG INTERIOR LOAD BRNG. WALLS

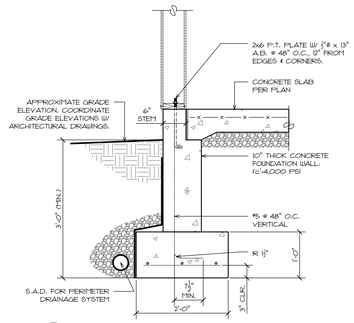


ROOF SHEATHING IS MIN. 5/8" EXT. GRADE CDX PLYWOOD

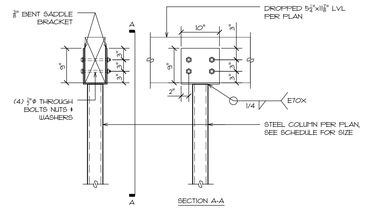
B ROOF SHEATHING ATTACHMENT
SCALE: 1½" = 1'-0"



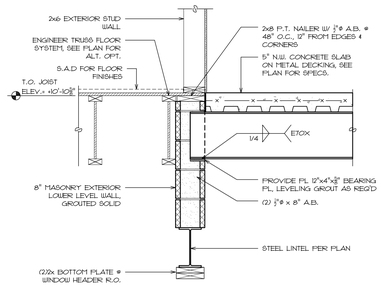
A STEEL DETAIL
SCALE: 1" = 1'-0"



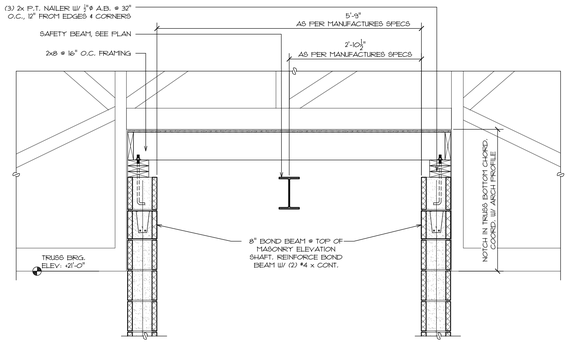
16 FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"



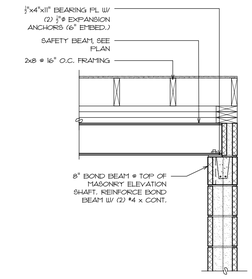
15 SADDLE BRACKET DETAIL
SCALE: 3/4" = 1'-0"



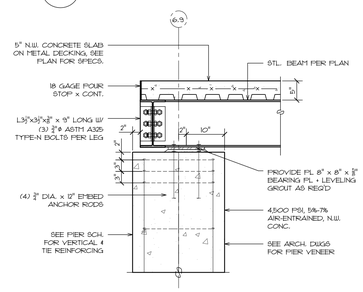
12 ELEVATED DECK STEEL DETAIL
SCALE: 3/4" = 1'-0"



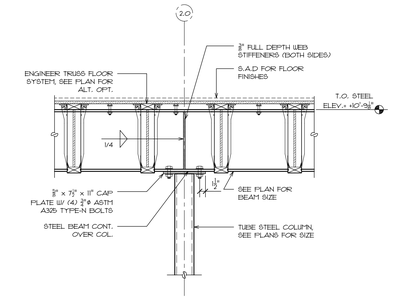
11 HOIST BEAM BRG. DETAIL
SCALE: 3/4" = 1'-0"



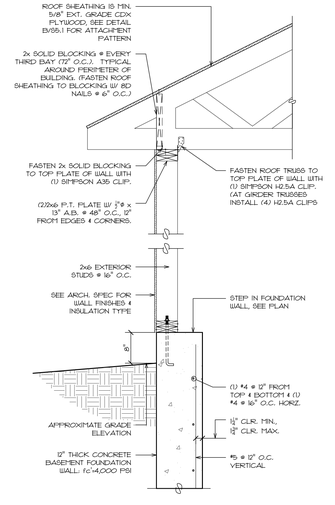
10 HOIST BEAM DETAIL
SCALE: 3/4" = 1'-0"



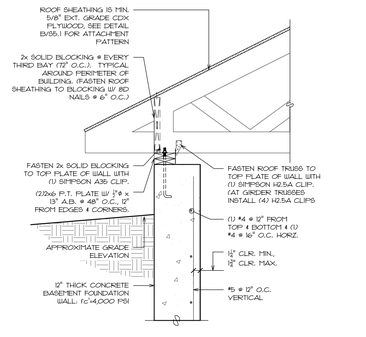
6 STEEL DETAIL - ELEVATOR PILASTER
SCALE: 3/4" = 1'-0"



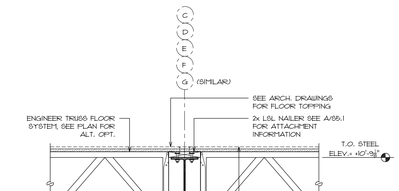
5 STEEL DETAIL - BEAM CONT. @ COL.
SCALE: 3/4" = 1'-0"



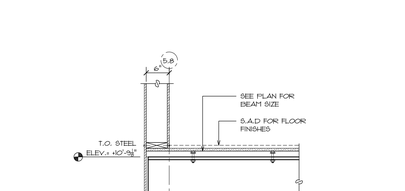
2 FRAMING DETAIL
SCALE: 3/4" = 1'-0"



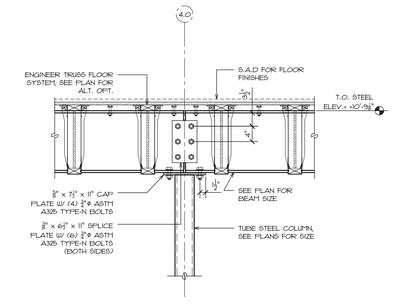
1 FRAMING DETAIL
SCALE: 3/4" = 1'-0"



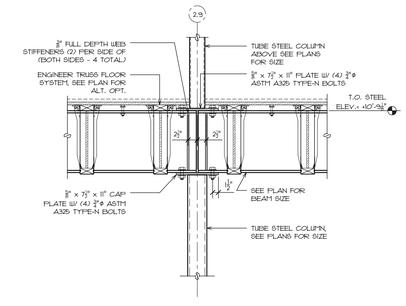
14 ELEVATED DECK SLAB FRAMING DETAIL
SCALE: 3/4" = 1'-0"



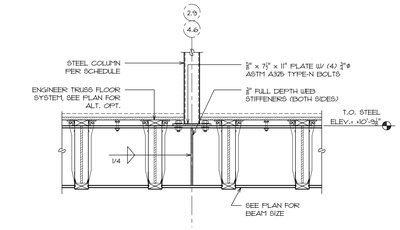
13 ELEVATED DECK SLAB EDGE SUPPORT DETAIL
SCALE: 3/4" = 1'-0"



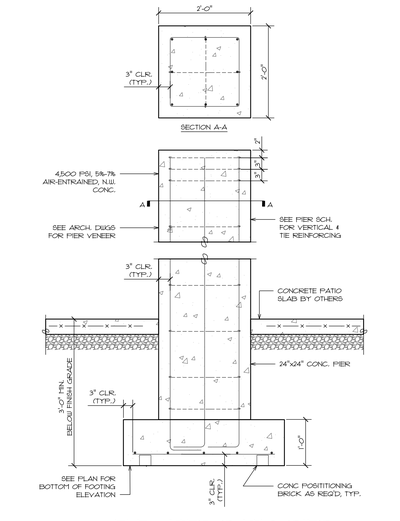
4A STEEL DETAIL - BEAM SPLICE @ COL.
SCALE: 3/4" = 1'-0"



4 STEEL DETAIL - COLUMN ABOVE
SCALE: 3/4" = 1'-0"



7 EXTERIOR STL. STEEL DETAIL - COL. ABOVE
SCALE: 3/4" = 1'-0"



3 ELEVATED PATIO PIER FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

FLUENT DESIGN GROUP, LLC
Engineering|Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS			
Date	No.	Description	chk'd by

SEAL:

DRAWING NAME: STRUCTURAL FRAMING DETAILS

WOODLANDS AT GREYSTONE

SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

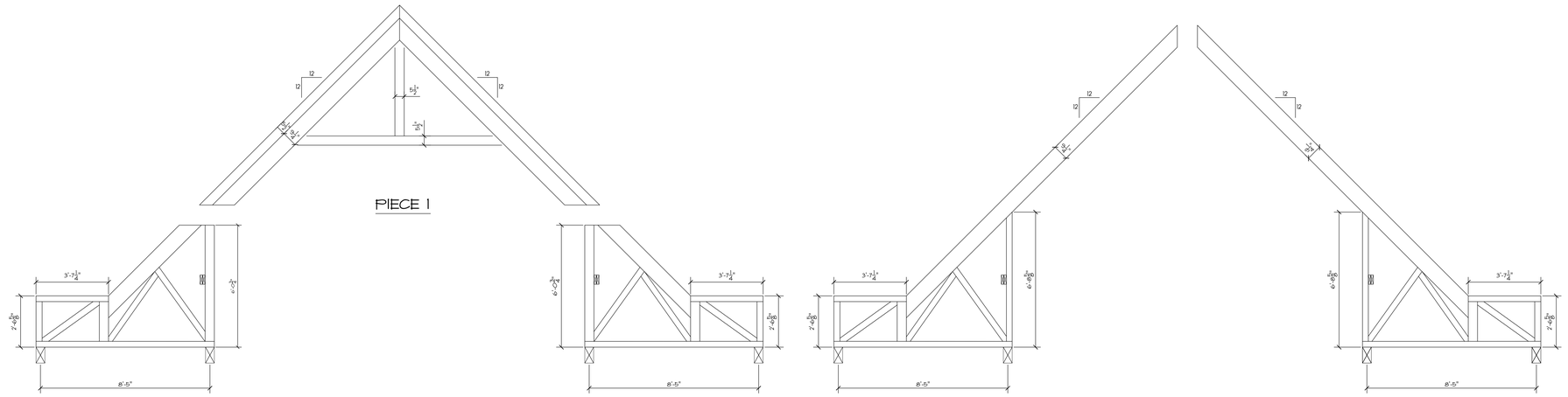
LOCATION:

Project number: SFA-1905	drawn by: RCH
date: 2020-09-04	chk'd by: RCH
scale: AS NOTED	approv. by: RCH

sheet no.

S5.1

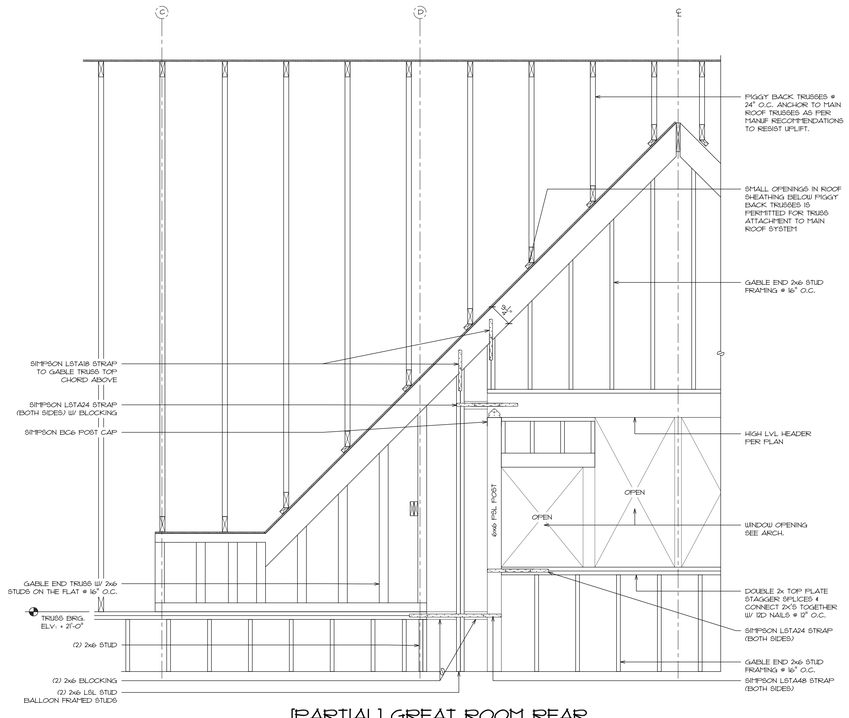
FLUENT DESIGN GROUP, LLC
Engineering|Design
1095 WOOD LANE, LANGHORNE, PA 19047
215.372.0333 FLUENTDESIGNGROUP.NET



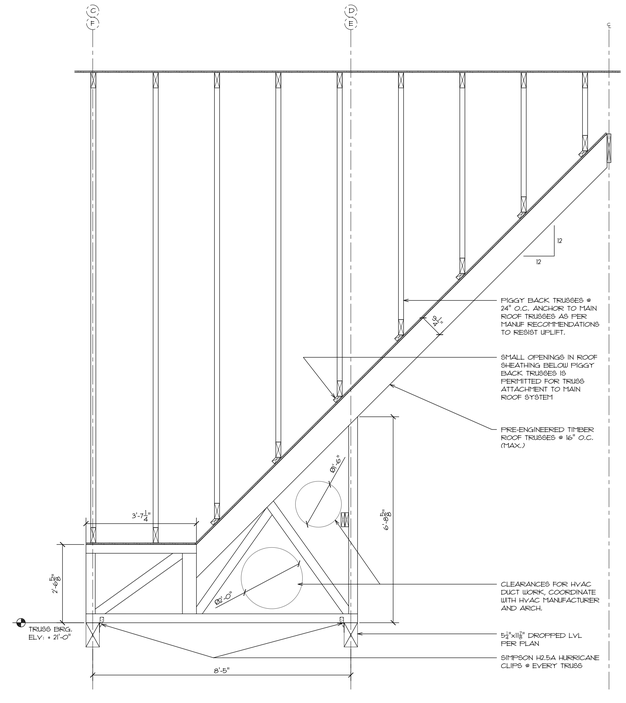
(3) PLY ARCHITECTURAL / STRUCTURAL TRUSS PROFILE

COMMON GREAT ROOM TRUSS PROFILE

A GREAT ROOM TRUSS PROFILES
SCALE 3/8" = 1'-0"



2 [PARTIAL] GREAT ROOM REAR GABLE END WALL ELEVATION DETAIL
SCALE 1/2" = 1'-0"



1 GREAT ROOM TRUSS DETAIL
SCALE 1/2" = 1'-0"

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

Stampfl Associates
architecture + planning
711 Hyde Park
Doylestown, PA 18902
215.345.4609 p 215.345.4610 f
www.stampflassociates.com

REVISIONS

Date	No.	Description	chk'd by

SEAL:

DRAWING NAME: TRUSS FRAMING DETAILS & PROFILES

WOODLANDS AT GREYSTONE

SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

LOCATION:

Project number: SFA-1905	drawn by: RCH
date: 2020-09-04	chk'd by: RCH
scale: AS NOTED	approv. by: RCH

sheet no.

S5.2