BLDR-2022-10023

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PERMIT # OSWP-2022-1092

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4774-08-0932

APPLICANT / OWNER: HELMSMAN HOMES, LLC | APPLICANT ADDRESS: PO Box 3965, MOORESVILLE, NC 28117

SITE ADDRESS: 174 SALEM SPRINGS LN, STATESVILLE, NC 28625 | PHONE: 7043636038 | ALT. PHONE: (980) 500-1251

SITE DIRECTIONS: E Mocksville Hwy -> R New Salem -> R Salem Springs -> lot on R | SAP CONTROLLED: YES ☐ NO ☑

SUBDIVISION: Salem Springs | SECTION: N/A | LOT #: 11 | LOT AREA: 1.129 | DESIGN FLOW: 360 | L.T.A.R.: 0.25

Septic Tank: 1000 (gal)	STB: Infiltrator	Date:	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 3	Water Supply: City Water
Pump Tank: 1000 (gal)	PT: Infiltrator	Date:	System Description: 25% Reduction - IIIb		☐ Business	No. Persons: 6	
Pump Make:	Model:	Serial #:	Repair System Description: PPBPS - IIIe		☐ Other	No. Employees:	
# Nitrification Fields: 1	# Lines: 3	Linear Ft.: 360	Maintenance Agreement Required: ☐ YES ☑ NO		☑ Slab	☐ Crawl Space	
Trench Width: 36	Trench Bottom Depth (Low side): 34		Gravel Depth: 0	☐ GRAVITY ☑ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

Improvement permit issued pursuant to: G.S. 130A-335(a2), (a3) & (a4) using signed & sealed LLS/LG Evaluation attached, from:

Gene Young

LSS# 1080

Construction authorization issued pursuant to: G.S. 130A-335(a2) & (a5)

AOWE# 10005E

AS BUILT SKETCH

Electrical box

Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION

☐ IMPROVEMENT PERMIT with plat valid without expiration ☑ IMPROVEMENT PERMIT with site plan valid for 60 mos. ☑ AUTHORIZATION TO CONSTRUCT valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.

Owner / Applicant Signature: ☒ Online Signature | Date: 8/19/22

IMPROVEMENT PERMIT by: Ben Botkins ✓ | Date: 12/18/22

AUTHORIZATION TO CONSTRUCT by: Ben Botkins ✓ | Date: 11/23/2022

Installed By: Vada

OPERATION PERMIT by: ✓ | Date: 1/29/25

Existing System Inspected By: | Date:

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 BETWEEN 8am-9am the day the inspection is needed.

BLDR-2022-10023

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 8/18/2022 (Date) by BB (Initials)

Permit Number: OSWP 2022-0695

174 Salem Springs Lot 11

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization application is:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A. Botkins Date of Issuance: 8/19/2022

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner. Final landscaping shall be constructed to divert water and establish vegetative cover.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: 8/19/2027

See attached site sketch

STB : INFILTRATOR

P.T. : INFILTRATOR

Salem Springs Lot 11

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 12-5-2022 (Date) by BB (Initials)

Permit Number: BLDR 2022-10623

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization application is:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A Bobbitt Date of Issuance: 12-8-2022

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner. Final landscaping shall be constructed to divert water and establish vegetative cover.

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Construction Authorization Expiration Date: 8/19/2027

See attached site sketch

County: Iredell

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4774-08-9032

Issued To: Helmsman Homes

Property Location: 174 Salem Springs Rd, lot 11

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: Gene Young, 10005E

Facility Type: House

☑ New ☐ Expansion ☐ Repair ☐ System Relocation

Basement? ☐ Yes ☑ No Basement Fixtures? ☐ Yes ☑ No

Type of Wastewater System** 25% Reduction (Initial) PPBPS (Repair)

Design Daily Flow: 360 GPD Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☑ No

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 360 feet Trench/Bed Spacing: 9 feet on center

Drainfield square footage: 1440 Trench/Bed Width: 36 inches LTAR: .25 gpd/ft²

Soil Cover: 22 inches Slope Adjusted Maximum Trench/Bed Depth: 34 inches

Aggregate Depth: ____inches above pipe ____inches below pipe 6 inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☑ No

Pump Requirements: 14.5 ft. TDH vs. 21.33 GPM Grease Trap Size (if applicable): ____ gallons

Distribution Method: ☑ Serial ☐ D-Box or Parallel ☒ Pressure Manifold(s) ☐ LPP ☐ Other:

Artificial Drainage Required: Yes ☐ No ☑ If yes, please specify details:

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.1937(h)]: ☐ Yes ☑ No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☑ No

Declaration of Restrictive Covenants: ☐ Yes ☑ No

****If applicable:**

I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.

Owner/Legal Representative Print Name: _____

Owner/Legal Representative Signature: _____ Date: _____

Pre-Construction Conference Required: Yes ☑ No ☐

Conditions: See attached installer information sheet, Iredell County permission to change septic tank location and distribution type and from a pump system to a gravity fed system if maximum trench can be maintained

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Gene Young AOWE

AOWE/PE Signature: Gene Young AOWE Date: 7-27-22

NC ONSITE WASTEWATER EVALUATOR — GENE YOUNG, AOWE 10005E

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

LEY
SOIL & Onsite Wastewater CONSULTING PLLC

Date: 7-27-2

Project Name: SALEM SPRINGS LOT 11

Session Law 2022-11 (S372), AUTHORIZATION FORM

LEY Soil & Onsite Wastewater Consulting has been contracted to evaluate soil, design, and submit an Onsite Wastewater system proposal to the Iredell County Environmental Health Department on behalf of Helmsman Homes, 116 Gasoline Alley, STE 105, Mooresville, NC 28117

The Licensed Soil Scientist (LSS) Evaluation attached to this application is to be used to produce, design, and include construction features for permitting in accordance with SL 2022-11, S372

"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335(a2), (a5) and (a6).

Tim Carr
_____ Owner Signature

Gene Young--(336)-909-9060 geneleysoils@icloud.com
Gary Easter--(336)-909-9058 garyleysoils@icloud.com
Jeff Link--(336)-909-8624 jeffleysoils@icloud.com
NC Licensed Soil Scientist, AOWE, NC Environmental Health Specialist

CALCULATIONS

Location Salem Springs lot 11

Lot No:

No. of Bedrooms	3	
Design Flow	360	$^{gal}/_{day}$
LTAR	0.25	$^{gpd/ft^2}$
25% RED.? (YES OR NO)	YES	
Supply Line Length	145	ft.
Supply Line Volume	25.23	gal.
Amount of Line Required	360	
Amount of Line from Layout	360	ft.
Gallons per Minute	21.33	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Required Pump Tank Capacity	1000	gal.
Lateral Line Volume	235.08	gal.
Dosing Volume	164.56	gal.

Note: Dosing Volume based on 70% of lateral line volume

Tank Draw Down	7.8	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	7.71	minutes
Elevation Head	15.91	ft.
Pressure Head	2	ft.
Friction Factor	3.48	ft./100 ft. *(From the interpolater.)*
Friction Head	5.05	ft.
Total Dynamic Head (+20%)	27.55	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

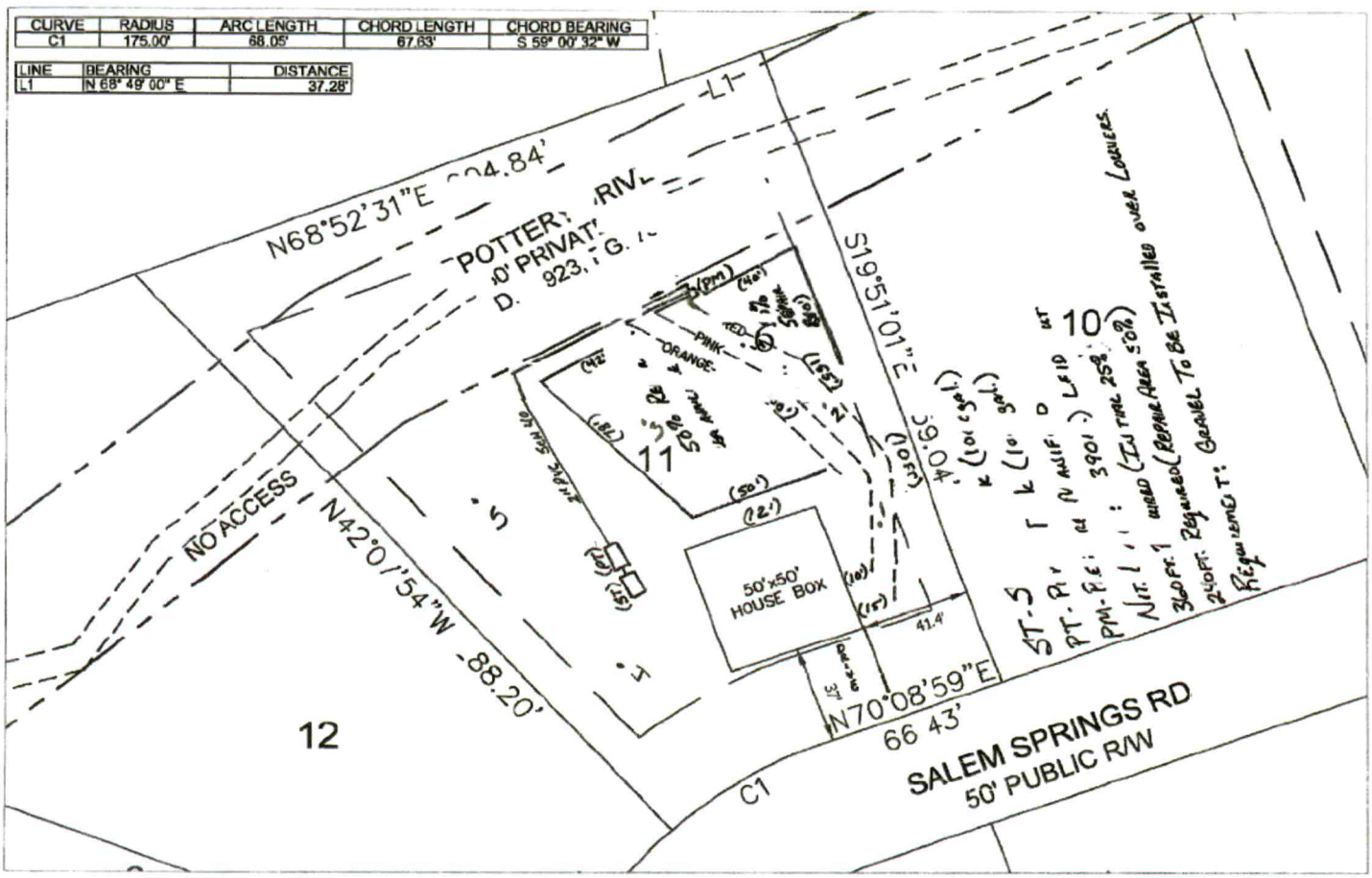
PRESSURE MANIFOLD TAPSHEET - Salem Springs lot 11

SYSTEM

Line #	Color	Elev	Length	Hole Size	Flow/Tap	gpd	Trench Area	Line LTAR
1	***RED***		***130***	SCH 40 1/2	**7.11**	54.85	390	0.14
2	***PINK***		***130***	SCH 40 1/2	**7.11**	54.85	390	0.14
3	***ORANGE***		***100***	SCH 40 1/2	**7.11**	54.85	300	0.18

total	**feet =**	**360**	**gal/min =**	**21.33**	
		Des. Flow	**360**		
		Pump Run=	**7.71**		
		LTAR	**0.250**		

Some lines flagged longer in the field, shorten to lengths shown here.



Salem Springs Subdivision Lot 11 Septic Site Plan

Base site plan from Salem Springs Subdivision Plans provided by Jordan Grant & Associates.

GRAPHIC SCALE

0 25 50 100

1 inch = 50 feet

Sheet ____ of ____
PROPERTY ID #: ____
COUNTY: IREDELL

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

(Complete all fields in full)

OWNER: NEST HOMES / SALEM SPRINGS / HELMSMAN HOMES APPLICATION DATE 2/10/22
ADDRESS: 236 RACEWAY DR. SUITE 7 DATE EVALUATED: ____
PROPOSED FACILITY: 3BR/HSE PROPOSED DESIGN FLOW (.1949): 360 PROPERTY SIZE: ____
LOCATION OF SITE: HWY 64 onto NEW Salem Rd. Rt. on Salem Springs Rd. PROPERTY RECORDED: ____
WATER SUPPLY: . Private . Public . Well . Spring . Other ____
EVALUATION METHOD: . Auger Boring (Pit) TYPE OF WASTEWATER: . (Sewage) Industrial Process . Mixed

	1 (LOT #11)	2	3	4	5	6				
Landscape Position (1940)	L	L	L	L	L	L				
Slope%	< 4%	< 4%	< 4%	< 6%	< 6%	< 6%				
H 1 Depth (1943)	0-10	0-12	0-14	0-10	0-12	0-10				
H1 texture 1941	SCL	SCL	SCL	SCL	SCL	SCL				
H1 Structure 1941	GR	GR	GR	GR	GR	GR				
H1 Consistance 1941	FR SSSP	FR SSSP	FR SSSP	FR SSSP	FR SSSP	FR SSSP				
H1 Mineralogy 1941	SEXP	SEXP	SEXP	SEXP	SEXP	SEXP				
H 2 Depth (1943)	10-38	12-42	14-42	10-30	12-24	10-46				
H2 texture 1941	C	C	C	C	C	C				
H2 Structure 1941	Blky	Blky	Blky	Platey	Platey	Blky				
H2 Consistance 1941	FI SP	FI SP	FSP	FSP	FSP	FI SP				
H2 Mineralogy 1941	SEXP	SEXP	SEXP	SEXP	SEXP	SEXP				
H 3 Depth (1943)	38-58	42-54	42-60	Yellow Matrix		46				
H3 texture 1941	C	C	C	MLX SG		C/BC				
H3 Structure 1941	Blky	Blky	Blky			Blky				
H3 Consistance 1941	FI SP	FSP	FI SP			FI SP				
H3 Mineralogy 1941	SI Yellow Mottles	SI Yel	SI Yel			SEXP				
H 4 Depth (1943)	Mixing SEXP									
H4 texture 1941										
H4 Structure 1941										
H4 Consistance 1941										
H4 Mineralogy 1941										
LTAR	.25	.25	.25	U	U	.25				

Description	Initial System	Repair	Other Factors 1946
System Type	25%		Site Classification PS
LTAR	.25	.25	

Evaluated by GARY EASTER JEFF LINK, Gene Young

LICENSED SOIL SCIENTIST GENE YOUNG 1080 STATE OF NORTH CAROLINA

Installer Information

Be sure to read the permit very carefully before submitting bid.

The following details must be considered along with all other considerations:

Preconstruction Conference required with the installer, contractor, and AOWE before installation

- **Installation inspections by the AOWE (designer) must be scheduled 5 weekdays in advance**
- Concrete Septic Tank shall be approved by NC DHHS, (Shoaf 1000-gallon STB 760 septic tank recommended)
- All tanks shall be properly back filled and compacted to prevent slump in the future
- The installer is responsible for final grades and returning that grade to original, with the exception of added structural features
- **The supply trench shall be compacted to eliminate any cavities left during initial fill placement continuous fall of 1/8 inches per foot required or sewage effluent pump will be required**
- Installation of the system shall be completed during dry conditions in order to protect the soil structure
- All fittings shall be pressure rated fitting
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints
- Trenches shall be carefully excavated so the bottom has no more than ¼" fall in 10 feet, with no high or low areas within. **Do not over excavate trenches!** Any fine grading should be completed by hand with a rake and shovel, leaving no loose material.
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the rise.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral to prevent unwanted lateral water movement.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation
- Elevations at pin flag locations should be checked by the installer prior to beginning trenches to ensure accuracy
- If septic tank risers are used, they should be a minimum of 6" above finished grade or within 6" of final grade if buried

See Design Specification Sheet for Onsite Wastewater System information

- **If grading for slab foundation is utilized, do not grade/create greater than 2 feet of elevation difference within 15 feet of any component of the septic or repair. If back filling, do not backfill over any initial or repair septic line**

System is specified as an Accepted 25% Reduction Gravity Chamber installation with #4, #5, or #6 gravel to be installed 6 inches deep on each side of the chambers

Repair is specified as an PPBPS .

WALL STUD REQUIREMENTS	
EXT. WALL HEIGHT (h)	STUD SIZE AND SPACING
h < 10'-0"	2x4 @ 16" O.C.
10'-0" < h <11'-0"	2x4 @ 12" O.C.
11'-0" < h < 18'-0"	2x6 @ 16" O.C.
h > 18'-0"	CONSULT ENGINEER

I-JOIST NOTES

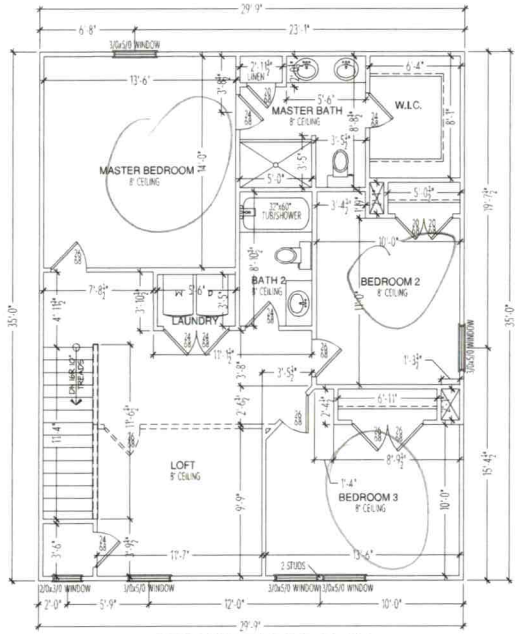
FRAMING CONSTRUCTION NOTES:

BRACED WALL LINE NOTE:
THIS STRUCTURE HAS BEEN ANALYZED FOR LATERAL LOADING USING CONTINUOUSLY SHEATHED WALL SHEATHING AS INDICATED IN THE GENERAL NOTES. WHERE BRACED WALLS DO NOT MEET THE PRESCRIPTIVE REQUIREMENTS OF SECTION R602.10 OF THE CODE, IT HAS BEEN ANALYZED BY ENGINEERING ANALYSIS INCORPORATING ENGINEERED LATERAL BRACING ELEMENTS WHERE NEEDED TO MEET THE INTENT OF THE CODE.

1. I-JOISTS ARE DESIGNED TO BE CONTINUOUS IN SOME AREAS. I-JOIST MANUFACTURER TO STOP AND START JOISTS WHERE SHOWN ON PLAN TO ALLOW FOR CONTINUOUS ACTION.
2. "DBL" INDICATES DOUBLE JOIST
3. RIM BOARDS AND BANDS PARALLEL TO FLOOR FRAMING TO BE DOUBLED.
4. ALL LOAD- BEARING HEADERS SHALL BE (2)2X8 SPF#2 UNLESS OTHERWISE NOTED ON THE PLAN.
5. WHERE DIMENSIONS ARE NOT INDICATED, BEAMS THAT RUN PARALLEL TO FLOOR JOISTS ARE INTENDED TO ALIGN UNDER LOAD BEARING WALLS. SEE THE ARCHITECTURAL PLANS FOR DIMENSIONS TO WALLS.
6. ALL WALLS UP TO 10 FT. TALL SHALL BE 2X4 SPF#2 @ 16" O.C, UNLESS NOTED OTHERWISE ON THE PLAN. TALLER WALLS SHALL COMPLY WITH TABLE R602.3(4) OF THE CODE OR AS NOTED ON THE PLAN.
7. WOOD BEAMS SHALL BE SUPPORTED BY METAL HANGERS OF ADEQUATE CAPACITY. WHERE FRAMING INTO BEAMS OR LEDGERS, THE FOLLOWING HANGER SCHEDULE MAY BE USED UNLESS NOTED OTHERWISE ON THE PLAN:

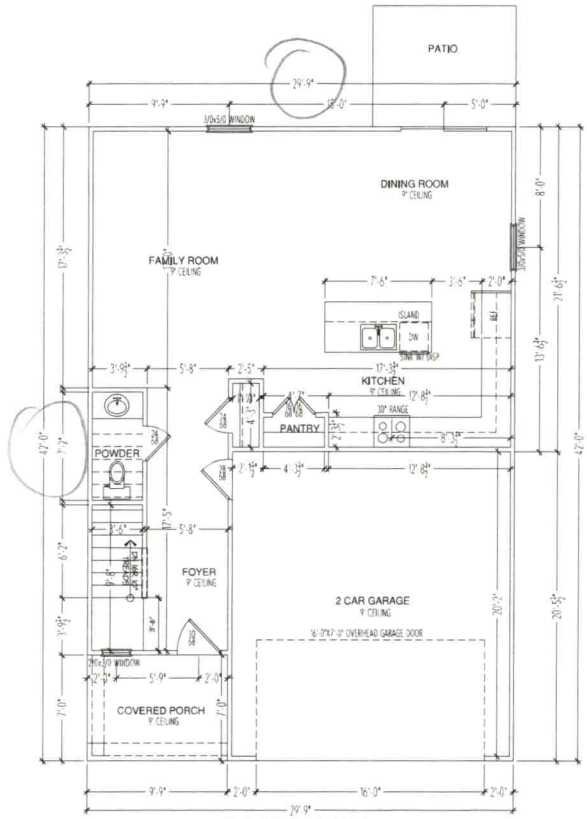
MEMBER SIZE	SIMPSON HANGERS
(2) 2X8	LUS 28-2
(2) 2X10	LUS 210-2
(2) 2X12	LUS 210-2
(2) 1¾" X 9¼" LVL	HUS 410
(2) 1¾" X 11⅞" LVL	HUS 412
(2) 1¾" X 14" LVL	HUS 412
ALL TRIPLE LVLs	HHUS 5,50/10

8. NOTE: FILL ALL OF THE HOLES IN HANGERS WITH **16d** x 3½" COMMON NAILS (3½" x 0.162") OR 16d x2½" (2½" x 0.162") NAILS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DO NOT BEND OR MODIFY THE HANGER OR USE INAPPROPRIATE FASTENERS. DO NOT USE 10d X 1½" "HANGER NAILS" UNLESS OTHERWISE NOTED ON THE PLANS OR IN SITUATIONS WHERE ONLY 1½" OR LESS OF WOOD IS PROVIDED TO NAIL INTO.
9. STEEL BEAMS MUST HAVE (5)-2X4 OR (4)-2X6 STUDS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.
10. "LVL" AND GLU-LAM BEAMS MUST HAVE ENOUGH STUDS TO SUPPORT ALL PLIES AT EACH END WITH A MINIMUM OF (3)-2X4 OR (2)-2X6 STUDS UNDER EACH END UNLESS NOTED OTHERWISE.
11. ALL POINT LOADS FROM ROOF BRACES, JACK STUDS, BEAM SUPPORTS -WHETHER WOOD OR STEEL-CANNOT BEAR ON SHEATHING ALONE. BLOCKING EQUAL TO OR BETTER THAN THE POINT LOAD SUPPORTS ABOVE MUST BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION. INSTALL 2X4 SQUASH BLOCKS (S.B.) OF EQUAL NUMBER TO COLUMN ABOVE BETWEEN SUBFLOOR AND FOUNDATION WALL OR LOWER PLATE. RIM BOARDS AND I-JOIST BLOCKING **SHALL NOT BE CONSIDERED** AS AN ACCEPTABLE MEANS OF SUPPORT UNDER CONCENTRATE POINT LOADS FROM LVL AND STEEL BEAMS OR WHERE "S.B" IS INDICATED ON THE PLAN.
12. FASTEN ALL TRIPLE PLY LVLs TOGETHER WITH TWO ROWS OF 5" LONG TRUSSLOK OR SIMPSON SDS SCREWS @ 16" O.C. AND FOUR PLY LVLs WITH TWO ROWS OF 6½" TRUSSLOK SCREWS @ 16" O.C. UNLESS NOTED OTHERWISE ON THE PLANS. THE SCREWS SHALL BE LOCATED A MINIMUM OF 2" AND A MAXIMUM OF 3" FROM THE TOP OR BOTTOM OF THE BEAM.
13. FASTEN FIRST KING STUD TO LUMBER HEADER WITH AT LEAST THREE 16D (3)"X0.162" IN EACH PLY.
14. **JACK AND KING STUD SCHEDULE AT WALL OPENINGS:**
TO BE INSTALLED AT EACH END OF OPENING UNLESS OTHERWISE NOTED AS "ALL" OR "WK" ON PLAN)
SPANS UP TO 4'-0" ..... 1 JACK, 1 KING
SPANS >4'-0" TO 5'-6" ..... 1 JACK, 2 KINGS
SPANS >5'-6" TO 6'-6" ..... 2 JACK, 3 KINGS
SPANS >6'-6" ..... SEE PLAN



SECOND FLOOR PLAN

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



FIRST FLOOR PLAN

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

HELMSMAN HOMES, LLC
236 Raceway Drive Suite 7
Mooresville NC 28117
PH: 704-206-4251

Township/County
TOWNSHIP COUNTY

Engineer

Stamp/seal

Project name/owner
THE PILOT PLAN

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Date
December 22, 2021

Drawn by
MWH

Reviewed by
CAD

Plan set scale
24x36 sheet
1/4" = 1'-0"
11x17 sheet
1/8" = 1'-0"

Project/plan code
XX.XX.XXXX

Drawing set
FOR CONSTRUCTION

Sheet title/description
FIRST FLOOR PLAN
ELEVATION A

Sheet no.
A3.0

Master plan version
v1.0

WALL STUD REQUIREMENTS	
EXT. WALL HEIGHT (h)	STUD SIZE AND SPACING
h < 10'-0"	2x4 @ 16" O.C.
10'-0" < h <11'-0"	2x4 @ 12" O.C.
11'-0" < h < 18'-0"	2x6 @ 16" O.C.
h > 18'-0"	CONSULT ENGINEER

I-JOIST NOTES

FRAMING CONSTRUCTION NOTES:

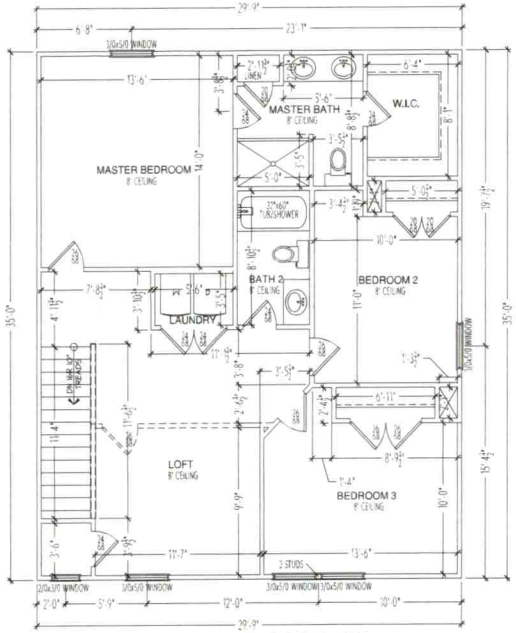
BRACED WALL LINE NOTE:
THIS STRUCTURE HAS BEEN ANALYZED FOR LATERAL LOADING USING CONTINUOUSLY SHEATHED WALL SHEATHING AS INDICATED IN THE GENERAL NOTES. WHERE BRACED WALLS DO NOT MEET THE PRESCRIPTIVE REQUIREMENTS OF SECTION R602.10 OF THE CODE, IT HAS BEEN ANALYZED BY ENGINEERING ANALYSIS INCORPORATING ENGINEERED LATERAL BRACING ELEMENTS WHERE NEEDED TO MEET THE INTENT OF THE CODE.

1. I-JOISTS ARE DESIGNED TO BE CONTINUOUS IN SOME AREAS. I-JOIST MANUFACTURER TO STOP AND START I-JOISTS WHERE SHOWN ON PLAN TO ALLOW FOR CONTINUOUS ACTION.
2. "DBL" INDICATES DOUBLE JOIST
3. RIM BOARDS AND BANDS PARALLEL TO FLOOR FRAMING TO BE DOUBLED.
4. ALL LOAD- BEARING HEADERS SHALL BE (2)2X8 SPF#2 UNLESS OTHERWISE NOTED ON THE PLAN.
5. WHERE DIMENSIONS ARE NOT INDICATED, BEAMS THAT RUN PARALLEL TO FLOOR JOISTS ARE INTENDED TO ALIGN UNDER LOAD BEARING WALLS. SEE THE ARCHITECTURAL PLANS FOR DIMENSIONS TO WALLS.
6. ALL WALLS UP TO 10 FT. TALL SHALL BE 2X4 SPF#2 @ 16" O.C. UNLESS NOTED OTHERWISE ON THE PLAN. TALLER WALLS SHALL COMPLY WITH TABLE R602.3(4) OF THE CODE OR AS NOTED ON THE PLAN.
7. WOOD BEAMS SHALL BE SUPPORTED BY METAL HANGERS OF ADEQUATE CAPACITY WHERE FRAMING INTO BEAMS OR LEDGERS. THE FOLLOWING HANGER SCHEDULE MAY BE USED UNLESS NOTED OTHERWISE ON THE PLAN:

MEMBER SIZE	SIMPSON HANGERS
(2) 2X8	LUS 28-2
(2) 2X10	LUS 210-2
(2) 2X12	LUS 210-2
(2) 1¾" X 9¼" LVL	HUS 410
(2) 1¾" X 11⅞" LVL	HUS 412
(2) 1¾" X 14" LVL	HUS 412
ALL TRIPLE LVLs	HHUS 5.50/10

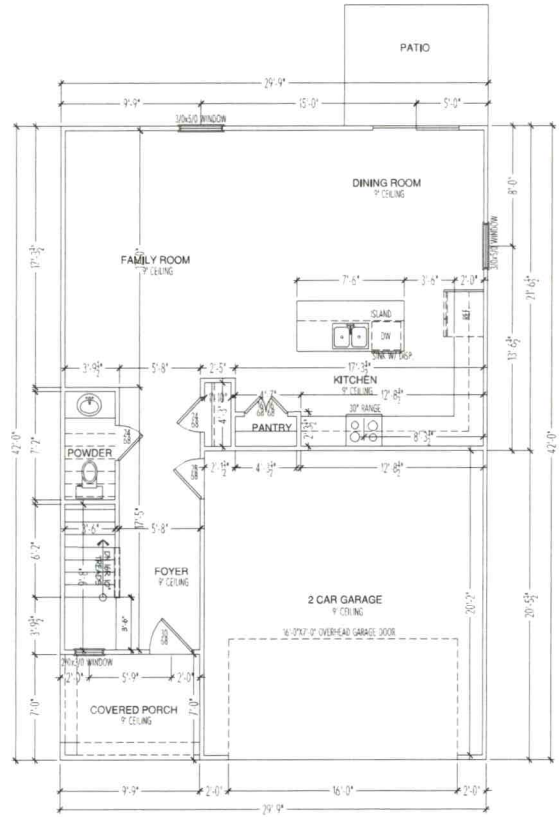
8. NOTE: FILL ALL OF THE HOLES IN HANGERS WITH **10d** x 3½" COMMON NAILS (3)"x 0.162") OR 16d x2½" (2)"x 0.162") NAILS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DO NOT BEND OR MODIFY THE HANGER OR USE INAPPROPRIATE FASTENERS. DO NOT USE 10dX 1½" "HANGER NAILS" UNLESS OTHERWISE NOTED ON THE PLANS OR IN SITUATIONS WHERE ONLY 1½" OR LESS OF WOOD IS PROVIDED TO NAIL INTO.
9. STEEL BEAMS MUST HAVE (5)-2X4 OR (4)-2X6 STUDS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE.
10. "LVL" AND GLU-LAM BEAMS MUST HAVE ENOUGH STUDS TO SUPPORT ALL PLIES AT EACH END WITH A MINIMUM OF (3)-2X4 OR (2)-2X6 STUDS UNDER EACH END UNLESS NOTED OTHERWISE.
11. ALL POINT LOADS FROM ROOF BRACES, JACK STUDS, BEAM SUPPORTS -WHETHER WOOD OR STEEL-CANNOT BEAR ON SHEATHING ALONE. BLOCKING EQUAL TO OR BETTER THAN THE POINT LOAD SUPPORTS ABOVE MUST BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION. INSTALL 2X4 SQUASH BLOCKS (SJB) OF EQUAL NUMBER TO COLUMN ABOVE BETWEEN SUBFLOOR AND FOUNDATION WALL OR LOWER PLATE. RIM BOARDS AND I-JOIST BLOCKING **SHALL NOT BE CONSIDERED** AS AN ACCEPTABLE MEANS OF SUPPORT UNDER CONCENTRATE POINT LOADS FROM LVL AND STEEL BEAMS OR WHERE "SJB" IS INDICATED ON THE PLAN.
12. FASTEN ALL TRIPLE PLY LVLs TOGETHER WITH TWO ROWS OF 5" LONG TRUSSLOK OR SIMPSON SDS SCREWS @ 16" O.C. AND FOUR PLY LVLs WITH TWO ROWS OF 6½" TRUSSLOK SCREWS @ 16" O.C. UNLESS NOTED OTHERWISE ON THE PLANS. THE SCREWS SHALL BE LOCATED A MINIMUM OF 2" AND A MAXIMUM OF 3" FROM THE TOP OR BOTTOM OF THE BEAM.
13. FASTEN FIRST KING STUD TO LUMBER HEADER WITH AT LEAST THREE 16D (3)"X0.162") IN EACH PLY.
14. **JACK AND KING STUD SCHEDULE AT WALL OPENINGS:**

TO BE INSTALLED AT EACH END OF OPENING UNLESS OTHERWISE NOTED AS "NJ" OR "#K" ON PLAN)
SPANS UP TO 4'-0" ..... 1 JACK, 1 KING
SPANS >4'-0" TO 5'-6" ..... 1 JACK, 2 KINGS
SPANS >5'-6" TO 6'-6" ..... 2 JACK, 2 KINGS
SPANS >6'-6" ..... SEE PLAN



SECOND FLOOR PLAN

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



FIRST FLOOR PLAN

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

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Township/County
TOWNSHIP COUNTY

Engineer

Stamp/seal

Project name/owner
THE PILOT PLAN

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Date
December 22, 2021

Drawn by
MWH

Reviewed by
CAD

Plan set scale
24x36 sheet
1/4" = 1'-0"
11x17 sheet
1/8" = 1'-0"

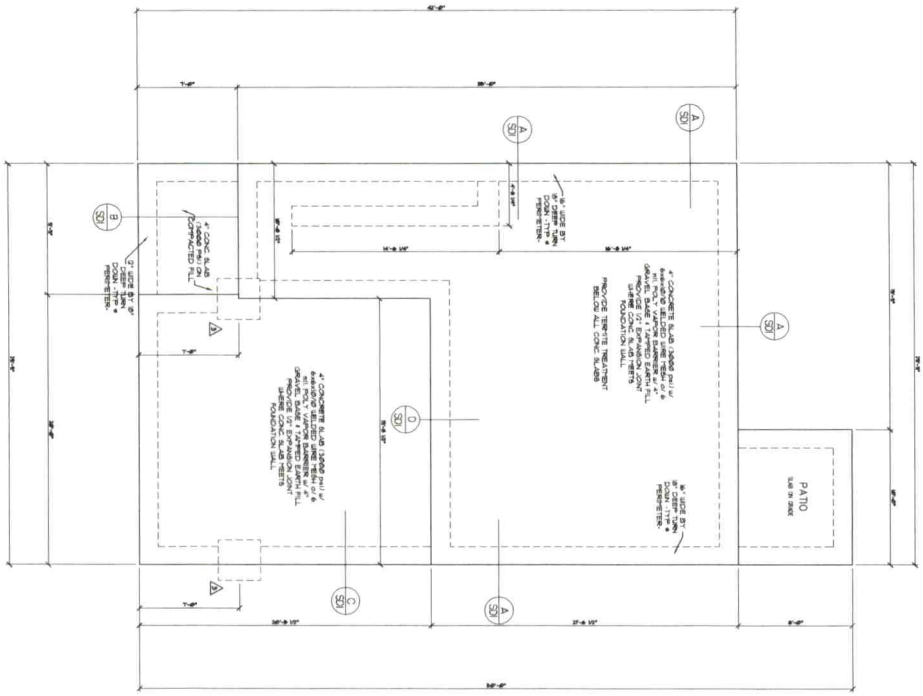
Project plan code
XX.XX.XXXX

Drawing set
FOR CONSTRUCTION

Sheet title/description
FIRST FLOOR PLAN
ELEVATION A

Sheet no.
A3.0

Master plan version
v1.0



FOUNDATION PLAN

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

FOOTING KEY
24"x12"x12" CONC FTG.
20"x20"x12" CONC FTG. w/ 4 #4 REBAR + 6" O.C. EW
24"x24"x12" CONC FTG. w/ 4 #4 REBAR + 6" O.C. EW
40"x40"x12" CONC FTG. w/ 6 #4 REBAR + 6" O.C. EW
48"x48"x12" CONC FTG. w/ 6 #4 REBAR + 6" O.C. EW

SHEET S1

REVISIONS:

DATE: July 28, 2021

DRAWN BY: KATHY HARRIS

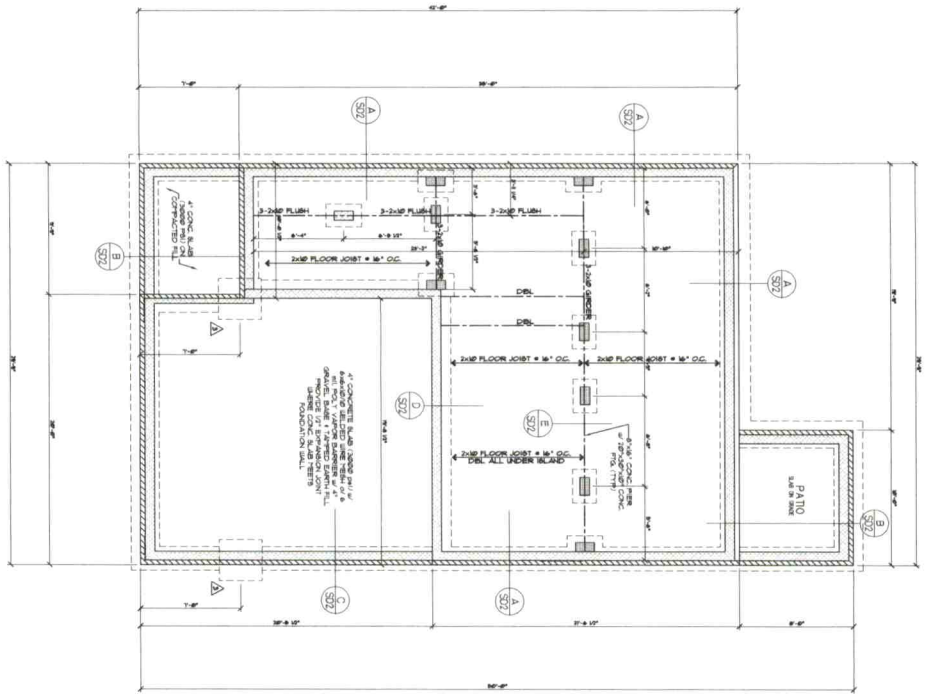
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CRAWL FOUNDATION PLAN

SCALE 1/4" = 1'-0"

FOOTING KEY	
1	24"x12" CONC. FTG.
2	18"x8" CONC. FTG. w/ 4 #5 REBAR + 6" O.C. EW
3	24"x10" CONC. FTG. w/ 4 #5 REBAR + 6" O.C. EW
4	30"x10" CONC. FTG. w/ 4 #5 REBAR + 6" O.C. EW
5	42"x10" CONC. FTG. w/ 5 #5 REBAR + 6" O.C. EW
6	48"x10" CONC. FTG. w/ 6 #5 REBAR + 6" O.C. EW

PIER KEY	
	8"x8" CPN. PIER (TYPICAL HEIGHT)
	8"x8" CPN. PIER (CROPPED TO ACCOMMODATE SLOPED UNDERFLOOR)

SHEET	DATE	DRAWN BY	REVISIONS
S2	July 28, 2021	KATHY HARRIS	

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PROJECT:

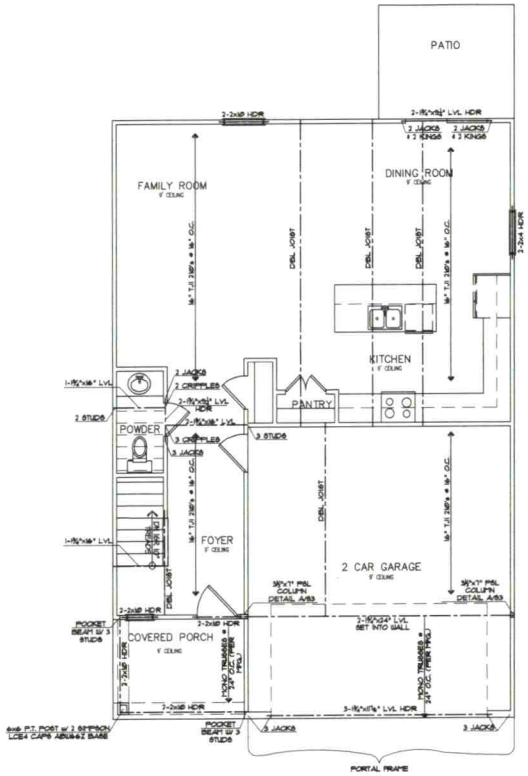
HELMSMAN HOMES

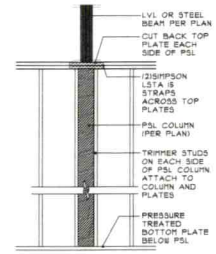
THE PILOT PLAN

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A TYPICAL PSL COLUMN DETAIL
SCALE: 1/2" = 1'-0"

TYPICAL HANGERS FOR JOIST & BEAMS

MEMBERS	APPROX. HANGER	OR HANGER
2x8	LUS26	JUS26
2x10	LUS210	JUS210
2x12	LUS212	JUS212
2-2x8	HUS26-2	JUS26-2
2-2x10	HUS210-2	JUS210-2
2-2x12	HUS212-2	JUS212-2
3-2x8	HUS26-3	JUS26-3
3-2x10	LUS210-3	JUS210-3
3-2x12	HU212-3 FTM	JUS212-3 FTM
2-1¾"x9¼" LVL	HGUS414D	THDH414D
2-1¾"x9¾" LVL	HGUS414D	THDH414D
2-1¾"x11⅞" LVL	HGUS412	THDH412
2-1¾"x14" LVL	HGUS412	THDH412
2-1¾"x14" LVL	HGUS414	THDH414
2-1¾"x16" LVL	HGUS414	THDH414
2-1¾"x18" LVL	HGUS414	THDH414
2-1¾"x24" LVL	HGUS414	THDH414
3-1¾"x9¼" LVL	HGUS88.5x5/10	THDH4810
3-1¾"x9¾" LVL	HGUS88.5x5/10	THDH4810
3-1¾"x11⅞" LVL	HGUS88.5x5/12	THDH4812
3-1¾"x14" LVL	HGUS88.5x5/12	THDH4812
3-1¾"x14" LVL	HGUS88.5x5/14	THDH4814
3-1¾"x16" LVL	HGUS88.5x5/14	THDH4814
3-1¾"x18" LVL	HGUS88.5x5/14	THDH4814
3-1¾"x24" LVL	HGUS88.5x5/14	THDH4814
4-1¾"x9¼" LVL	HGUS87.25/18	THDH7218D
4-1¾"x9¾" LVL	HGUS87.25/18	THDH7218D
4-1¾"x11⅞" LVL	HGUS87.25/12	THDH7212
4-1¾"x11⅞" LVL	HGUS87.25/12	THDH7212
4-1¾"x14" LVL	HGUS87.25/14	THDH7214
4-1¾"x16" LVL	HGUS87.25/14	THDH7214
4-1¾"x18" LVL	HGUS87.25/14	THDH7214

NOTE: ALL HANGERS BY SIMPSON STRONG TIE CO. INC. (BRAND - NAME EQUIVALENTS ACCEPTABLE)

FIRST FLOOR PLAN
SCALE 1/4" = 1'-0"

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S3

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TYPICAL HANGERS FOR JOIST & BEAMS

MEMBERS	SIMPSON HANGER	USP HANGER
2x6	LUS26	JUS26
2x8	LUS28	JUS28
2-2x6	HUS26-2	JUS26-2
2-2x8	HUS28-2	JUS28-2
3-2x6	HUS26-3	JUS26-3
3-2x8	HUS28-3	JUS28-3
3-2x10	HUS210-3	JUS210-3
2-1.75"x9 1/4" LVL	HUS1.81/9	THDH29
2-1.75"x11 7/8" LVL	HUS1.81/11	THDH211
2-1.75"x14" LVL	HUS1.81/14	THDH214
2-1.75"x16" LVL	HUS1.81/16	THDH216
3-1.75"x9 1/4" LVL	HUS2.62/9	THDH39
3-1.75"x11 7/8" LVL	HUS2.62/11	THDH311
3-1.75"x14" LVL	HUS2.62/14	THDH314
3-1.75"x16" LVL	HUS2.62/16	THDH316
4-1.75"x9 1/4" LVL	HUS3.62/9	THDH49
4-1.75"x11 7/8" LVL	HUS3.62/11	THDH411
4-1.75"x14" LVL	HUS3.62/14	THDH414
4-1.75"x16" LVL	HUS3.62/16	THDH416

NOTE: ALL HANGERS BY SIMPSON STRONG TIE CO., INC. (BRAND NAME EQUIVALENTS ACCEPTABLE)

SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"