

CITY OF LENNOX
107 SOUTH MAIN
PO BOX 228
LENNOX, SD 57039
(605) 647-2286



Detached Garages – Permitting & Basic Elements

Review Basis:

Lennox Municipal Ordinances, Lennox Zoning
2009 IRC, Lincoln County Plumbing and Electrical Commission

Application Form:

_____ All areas filled out

Site Plan:

_____ Property Lines, dimensions of property lines and buildings, setbacks, North Arrow

_____ Label existing and proposed structures, w/dimensions

_____ Grade and slope of Property

Floor Plans (1/4" = 1'-0") :

_____ Separate plan for each floor level, exterior dimensions, label and dimension of all rooms

_____ Location of Doors and windows with type/sizes, window wells, and egress

(show door swings, window U-values/Energy Star, safety glazing, indicate headers)

_____ Location of electrical, plumbing, & mechanical elements (furnace, toilet, tub, hot water, etc.)

_____ R-values for walls, floors, ceilings, indicate vapor barrier

Sections (1/4" = 1'-0") (see & utilize samples provided below – fill in as needed)

_____ Attic ventilation indicated at soffits and ridge

_____ Separate wall sections where significantly different

_____ Interior, Exterior, Ceiling, roof sheathing & finishes where applied/required

_____ Foundation/footing details (thickness, width, depth), showing rebar size/reinforcement, size and spacing of wall anchor bolts and any hold downs required.

_____ Size, span, and spacing of roof members (include any header sizes), include soffit/overhangs.

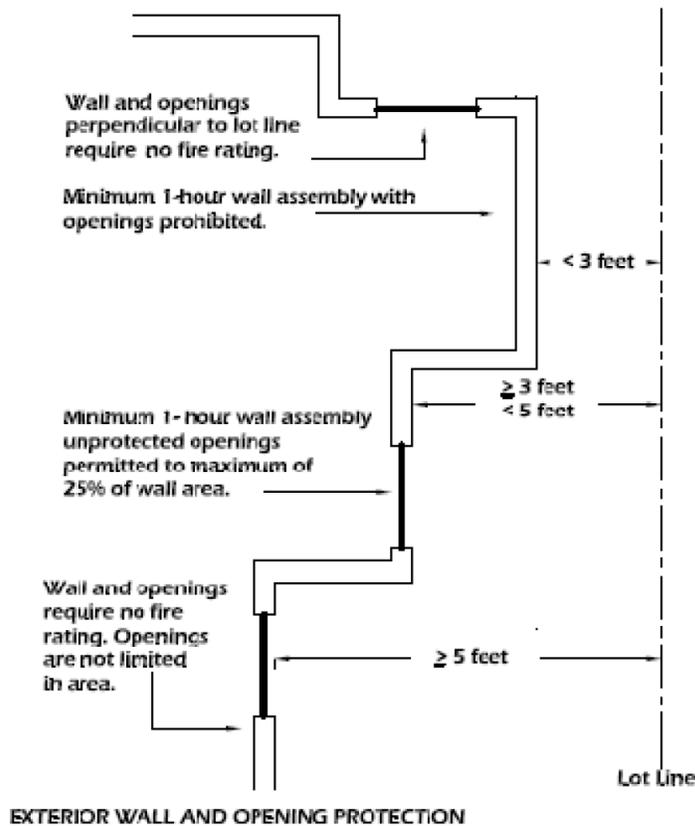
_____ Floor slabs: thickness, reinforcing, vapor barrier.

_____ Indicate drain tile and sump locations if required.

Inspections Required:

- 1) Footing and Foundation (Lennox) – Prior to back fill if conventional, prior to pour if trench style
- 2) Electrical and Plumbing Rough-in (State – separate permit required)
- 3) Framing (Lennox) – after exterior sheathing & window placement
- 4) Electrical and Plumbing Final (State – separate permit required)
- 5) Building Final – must pass final electrical and plumbing, all finishes & fixtures installed

Site Plan – Basic Parameters



Sample of simple plat/site plan

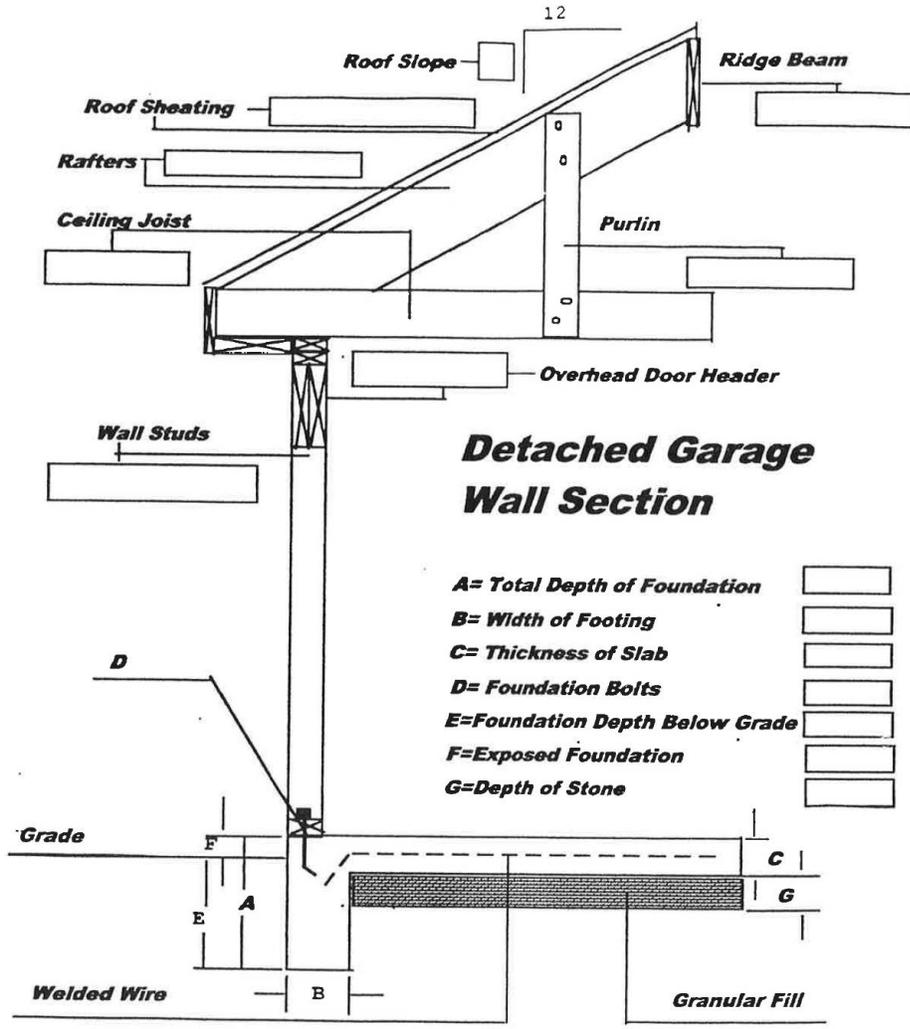
Garages located less than 6 feet from the residence shall be separated from the residence by not less than ½-inch gypsum board applied to the garage side.

One hour fire resistance typically is 5/8" type 'X' gypsum sheathing on both sides of framing.

See also Lennox Zoning Regulations:

12.03 Accessory Buildings/Structures

- A. No accessory building or structure shall be constructed upon a lot until the construction of the main building has been actually commenced, and no accessory building or structure shall be used unless the main building on the lot is also being used for its intended purpose.
- B. No accessory buildings or structures may be located within any front yard.
- C. Accessory buildings or structures shall be located at least three (3) feet from all property lines.
- D. Accessory buildings or structures shall not exceed fifty (50) percent of the entire property.
- E. Accessory buildings or structures with a gross floor area less than 120 square feet do not require a finished foundation. However, they must be anchored to the ground by fasteners or another appropriate method.
- F. Accessory buildings or structures with a gross floor area greater than 120 square feet must have a finished foundation made from concrete or other appropriate materials. Further, they must be accessible by a concrete driveway, suitable for the unobstructed passage of motor vehicles, that connects the building to the lot's adjacent roadway.
- G. No accessory building may be placed within an easement. Any existing accessory building placed within an easement that impedes the accessor intended use of that easement may be removed by the City or the City's representative at the owner's expense.
- H. No accessory building may be placed within drainageways and/or on drainage easements.
- I. A garage which is entered directly from an alley shall not be closer than ten (10) feet to the property line abutting the alley.
- J. Accessory buildings/structures may not be used for dwelling purposes.
- K. Cloth, canvas, plastic sheets and tarps, corrugated metal roofing or siding, and similar materials are not allowed as primary materials, except greenhouses and carports are allowed to have sheathing (glass or plastic) of prescribed building thickness as an outer covering. Standing seam metal roofing will be acceptable.



6mil Vapor Barrier _____
 (Under Heated Areas)

Footing Reinforcing
 Size _____
 Location _____

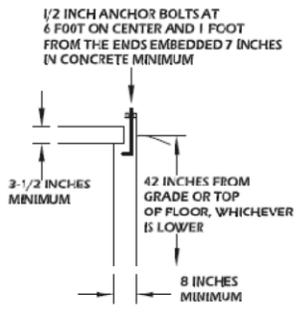
Wall Bracing _____

Total Roof Area/SF: _____
 Roof Ventilation:
 Type: _____
 Size/Net Free: _____
 (1/300 required)

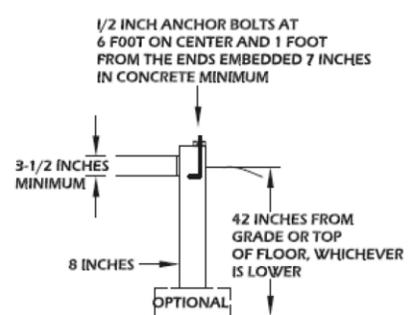
In Floor Plan -
 Electrical: _____
 Show lighting/outlets

Heating _____
 Show location/type

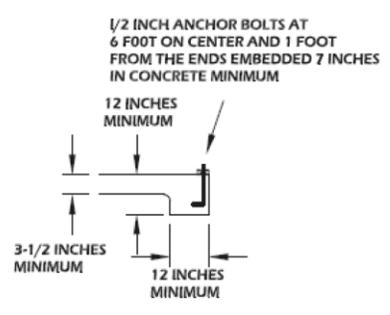
Sample Garage Section – Utilize infill boxes and side panel as needed



Trenched Footing

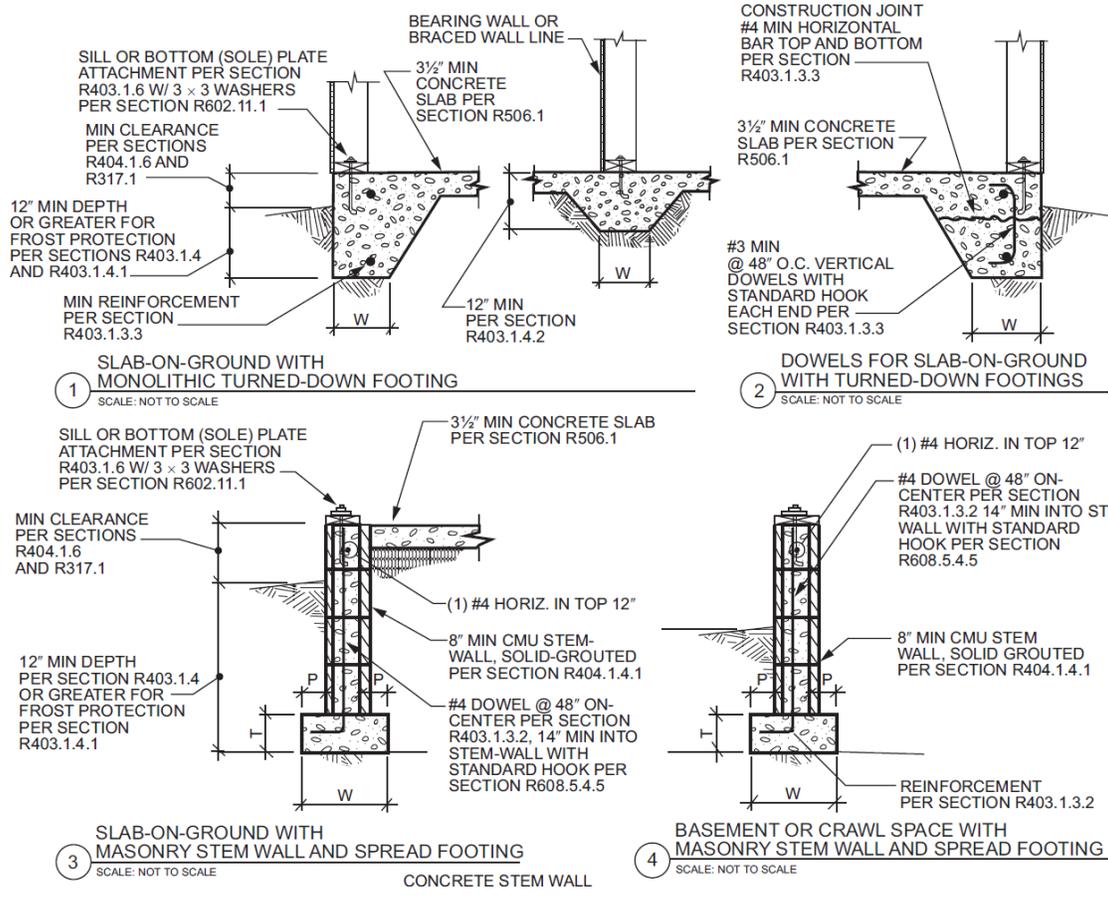


T- Footing

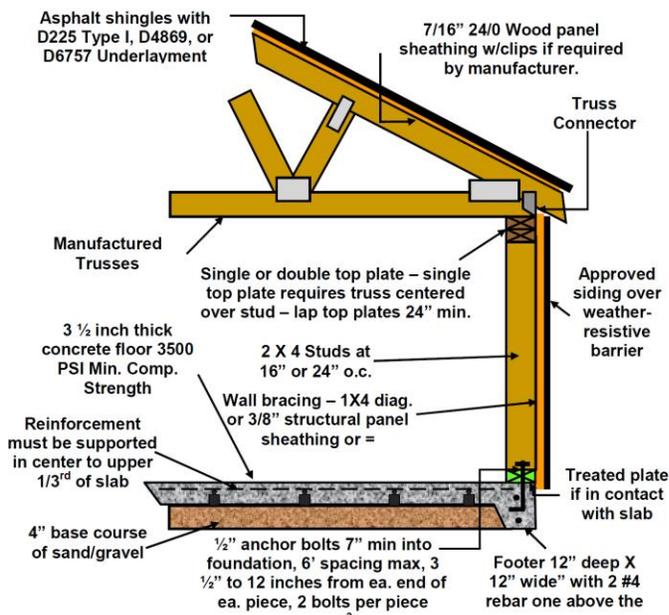


Slab on Grade

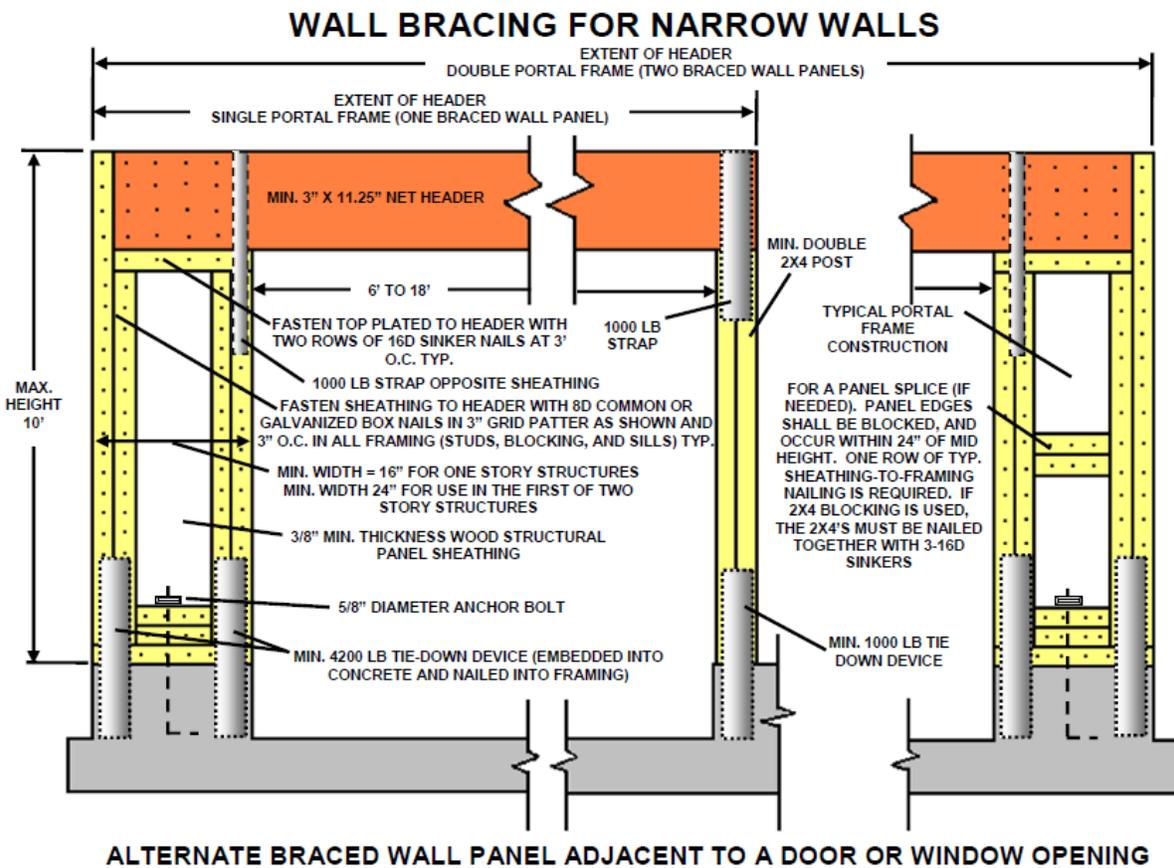
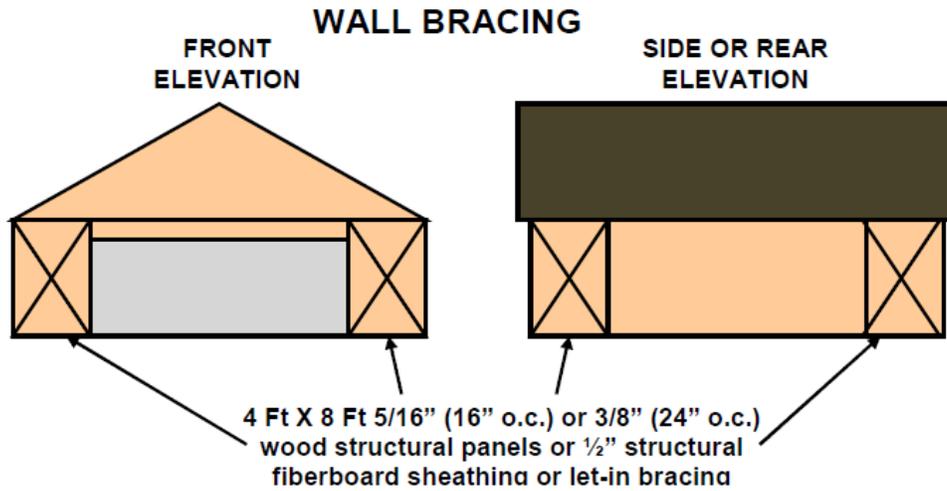
Type Exterior Wall Studs _____ Spacing _____ Headers _____
 Wall Sheathing _____ Siding _____
 Braced Wall Panels Size and Location _____
 Distance from Property Line Nth _____ Sth _____ Est _____ Wst _____
 Firewalls and Location _____ Overhang _____
 Pre-engineered Trusses _____ Rafters _____ Spacing _____
 Roof Sheathing _____ Roof Underlayment _____ Shingles _____



Sample footing/foundation & basic information



Basic section showing typical requirements



Window Header Schedule

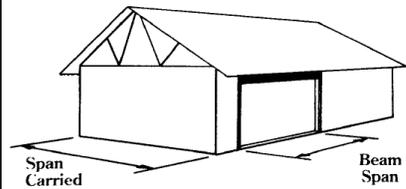
Permissible Headers Lengths – Single Story Trussed Roof Applications

Member Size	Grade/Species	Roof Truss Span									
		18	20	22	24	26	28	30	32	34	36
2-2x8s	Hem Fir Select Structural	8'9"	8'4"	8'0"	7'9"	7'6"	7'3"	7'0"	6'10"	6'8"	6'6"
	Hem Fir #1 and Better	7'7"	7'3"	7'10"	6'9"	6'6"	6'3"	6'1"	5'11"	5'9"	5'7"
	Hem Fir #1	7'2"	6'11"	6'8"	6'4"	6'2"	6'0"	5'9"	5'8"	5'6"	5'4"
	Hem Fir #2	6'10"	6'6"	6'3"	6'0"	5'10"	5'8"	5'6"	5'4"	5'2"	5'0"
	Spruce Pine Fir Select Structural	8'3"	7'11"	7'7"	7'4"	7'1"	6'10"	6'8"	6'5"	6'3"	6'1"
	Spruce Pine Fir #1/#2	6'11"	6'7"	6'4"	6'1"	5'11"	5'9"	5'7"	5'5"	5'3"	5'1"
	Douglas Fir Larch Select Structural	8'11"	8'6"	8'2"	7'11"	7'7"	7'4"	7'2"	7'0"	6'9"	6'7"
	Douglas Fir Larch #1	7'5"	7'1"	6'10"	6'6"	6'4"	6'1"	5'11"	5'9"	5'8"	5'6"
	Douglas Fir Larch #2	6'11"	6'7"	6'4"	6'1"	5'11"	5'9"	5'7"	5'5"	5'3"	5'1"
2-2x10s	Hem Fir Select Structural	10'8"	10'3"	9'10"	9'6"	9'2"	8'10"	8'7"	8'4"	8'1"	7'11"
	Hem Fir #1 and Better	9'3"	8'10"	8'6"	8'2"	7'11"	7'8"	7'5"	7'3"	7'0"	6'10"
	Hem Fir #1	8'9"	8'5"	8'1"	7'10"	7'6"	7'4"	7'1"	6'10"	6'8"	6'6"
	Hem Fir #2	8'4"	8'0"	7'8"	7'3"	7'1"	6'11"	6'8"	6'6"	6'4"	6'2"
	Spruce Pine Fir Select Structural	10'1"	9'8"	9'3"	8'11"	8'8"	8'4"	8'1"	7'11"	7'8"	7'6"
	Spruce Pine Fir #1/#2	8'5"	8'1"	7'9"	7'6"	7'3"	7'0"	6'9"	6'7"	6'5"	6'3"
	Douglas Fir Larch Select Structural	10'8"	10'5"	10'0"	9'8"	9'4"	9'0"	8'9"	8'6"	8'3"	8'1"
	Douglas Fir Larch #1	9'0"	8'9"	8'4"	8'0"	7'9"	7'6"	7'3"	7'1"	6'10"	6'8"
	Douglas Fir Larch #2	8'5"	8'1"	7'9"	7'6"	7'3"	7'0"	6'9"	6'7"	6'5"	6'3"
2-2x12s	Hem Fir Select Structural	12'5"	11'10"	11'5"	11'0"	10'7"	10'3"	10'0"	9'8"	9'5"	9'2"
	Hem Fir #1 and Better	10'9"	10'4"	9'10"	9'6"	9'2"	8'11"	8'8"	8'5"	8'2"	8'0"
	Hem Fir #1	10'4"	9'9"	9'5"	9'1"	8'9"	8'5"	8'3"	8'0"	7'9"	7'7"
	Hem Fir #2	9'8"	9'3"	8'11"	8'7"	8'3"	8'0"	7'9"	7'6"	7'4"	7'2"
	Spruce Pine Fir Select Structural	11'9"	11'3"	10'9"	10'5"	10'0"	9'9"	9'5"	9'2"	8'11"	8'8"
	Spruce Pine Fir #1/#2	9'10"	9'4"	9'0"	8'8"	8'5"	8'1"	7'10"	7'8"	7'5"	7'3"
	Douglas Fir Larch Select Structural	12'7"	12'1"	11'7"	11'2"	10'9"	10'6"	10'2"	9'9"	9'7"	9'4"
	Douglas Fir Larch #1	10'6"	10'2"	9'8"	9'3"	9'0"	8'8"	8'5"	8'2"	8'0"	7'9"
	Douglas Fir Larch #2	9'10"	9'4"	9'0"	8'8"	8'5"	8'1"	7'10"	7'8"	7'6"	7'3"
3-2x8s	Hem Fir Select Structural	10'9"	10'3"	9'10"	9'6"	9'2"	8'11"	8'7"	8'3"	8'2"	7'11"
	Hem Fir #1 and Better	9'3"	8'11"	8'6"	8'3"	7'11"	7'8"	7'6"	7'3"	7'1"	6'10"
	Hem Fir #1	8'10"	8'6"	8'1"	7'10"	7'7"	7'4"	7'1"	6'11"	6'8"	6'6"
	Hem Fir #2	8'4"	8'0"	4'8"	7'5"	7'2"	6'11"	6'8"	6'8"	6'4"	6'2"
	Spruce Pine Fir Select Structural	10'2"	9'8"	9'4"	9'0"	8'8"	8'5"	8'2"	7'11"	7'8"	7'6"
	Spruce Pine Fir #1/#2	8'6"	8'1"	7'9"	7'6"	7'3"	7'0"	6'10"	6'7"	6'5"	6'3"
	Douglas Fir Larch Select Structural	10'11"	10'3"	10'0"	9'8"	9'4"	9'0"	8'9"	8'6"	8'4"	8'1"
	Douglas Fir Larch #1	9'1"	8'8"	8'4"	8'0"	7'9"	7'6"	7'4"	7'1"	6'11"	6'8"
	Douglas Fir Larch #2	8'6"	8'1"	7'9"	7'6"	7'3"	7'0"	6'10"	6'7"	6'5"	6'3"
3-2x10s	Hem Fir Select Structural	13'1"	12'6"	12'0"	11'7"	11'3"	10'10"	10'6"	10'3"	10'0"	9'9"
	Hem Fir #1 and Better	11'4"	10'10"	10'5"	10'0"	9'0"	9'5"	9'1"	8'10"	8'8"	8'5"
	Hem Fir #1	10'9"	10'4"	9'11"	9'7"	9'3"	8'11"	8'8"	8'5"	8'2"	8'0"
	Hem Fir #2	10'2"	9'9"	9'4"	9'0"	8'9"	8'6"	8'2"	8'0"	7'9"	7'7"
	Spruce Pine Fir Select Structural	12'3"	11'10"	11'4"	11'0"	10'7"	10'3"	9'11"	9'8"	9'5"	9'2"
	Spruce Pine Fir #1/#2	10'4"	9'11"	9'6"	9'2"	8'10"	8'7"	8'4"	8'1"	7'10"	7'8"
	Douglas Fir Larch Select Structural	13'4"	12'9"	12'3"	11'10"	11'5"	11'1"	10'9"	10'5"	10'2"	9'10"
	Douglas Fir Larch #1	11'1"	10'7"	10'2"	9'10"	9'6"	9'2"	8'11"	8'8"	8'5"	8'2"
	Douglas Fir Larch #2	10'4"	9'11"	9'6"	9'3"	8'10"	8'7"	8'4"	8'1"	7'10"	7'8"
3-2x12s	Hem Fir Select Structural	15'2"	15'7"	14'0"	13'7"	13'0"	12'7"	12'3"	11'10"	11'7"	11'3"
	Hem Fir #1 and Better	13'2"	12'7"	12'1"	11'8"	11'3"	10'11"	10'7"	10'3"	10'0"	9'9"
	Hem Fir #1	12'6"	12'0"	11'6"	11'1"	10'8"	10'4"	10'1"	9'9"	9'6"	9'3"
	Hem Fir #2	11'10"	11'4"	10'11"	10'6"	10'1"	9'10"	9'6"	9'3"	9'0"	8'9"
	Spruce Pine Fir Select Structural	14'4"	13'9"	13'2"	12'9"	12'3"	11'11"	11'6"	11'3"	10'11"	10'8"
	Spruce Pine Fir #1/#2	12'0"	11'6"	11'0"	10'8"	10'3"	9'11"	9'8"	9'4"	9'2"	8'11"
	Douglas Fir Larch Select Structural	15'6"	14'10"	14'9"	13'8"	13'3"	12'10"	12'5"	12'1"	11'9"	11'6"
	Douglas Fir Larch #1	12'10"	12'3"	11'10"	11'4"	11'0"	10'8"	10'4"	10'0"	9'9"	9'6"
	Douglas Fir Larch #2	12'0"	11'6"	11'0"	10'8"	10'3"	9'11"	9'8"	9'4"	9'2"	8'11"

Overhead Garage Door Header Schedule

Number of Members Per Grade and Species/Solid Sawn Lumber for Single-Story Applications

9-Foot Spans										16-Foot Spans												
Roof Span	Header Size	Hem Fir Select Structural	Hem Fir #1 and Belter	Hem Fir #1	Hem Fir #2	Spruce Pine Fir Select Structural	Spruce Pine Fir #1/#2	Douglas Fir Larch Select Structural	Douglas Fir Larch #1	Douglas Fir Larch #2	Roof Span	Header Size	Hem Fir Select Structural	Hem Fir #1 and Belter	Hem Fir #1	Hem Fir #2	Spruce Pine Fir Select Structural	Spruce Pine Fir #1/#2	Douglas Fir Larch Select Structural	Douglas Fir Larch #1	Douglas Fir Larch #2	
18'	2x8s	2	3	3	4	2	4	2	3	4	18'	2x12s	3	4	5	5	4	5	3	5	5	
	2x10s	2	2	2	3	2	3	2	2	3		20'	2x12s	4	5	5	6	4	6	4	5	6
	2x12s	2	2	2	2	2	2	2	2	2			22'	2x12s	4	5	6	6	4	6	4	5
20'	2x8s	3	3	4	4	3	4	3	3	4	24'			2x12s	4	6	6	7	5	7	4	6
	2x10s	2	2	3	3	2	3	2	2	3		26'		2x12s	4	6	6	7	5	7	4	6
	2x12s	2	2	2	2	2	2	2	2	2			28'	2x12s	4	6	6	7	5	7	4	6
22'	2x8s	3	4	4	4	3	4	3	4	4	30'			2x12s	4	6	6	7	5	7	4	6
	2x10s	2	3	3	3	2	3	2	3	3		32'		2x12s	4	6	6	7	5	7	4	6
	2x12s	2	2	2	2	2	2	2	2	2			32'	2x12s	4	6	6	7	5	7	4	6
24'	2x8s	3	4	4	5	3	4	3	4	4	32'			2x12s	4	6	6	7	5	7	4	6
	2x10s	2	3	3	3	2	3	2	3	3		32'		2x12s	4	6	6	7	5	7	4	6
	2x12s	2	2	2	3	2	2	2	2	2			32'	2x12s	4	6	6	7	5	7	4	6
26'	2x8s	3	4	4	5	3	4	3	4	5	32'			2x12s	4	6	6	7	5	7	4	6
	2x10s	2	3	3	3	2	3	2	3	3		32'		2x12s	4	6	6	7	5	7	4	6
	2x12s	2	2	2	3	2	3	2	2	3			32'	2x12s	4	6	6	7	5	7	4	6
28'	2x8s	3	4	4	5	4	5	3	4	5	32'			2x12s	4	6	6	7	5	7	4	6
	2x10s	2	3	3	4	3	3	2	3	4		32'		2x12s	4	6	6	7	5	7	4	6
	2x12s	2	2	3	3	2	3	2	2	3			32'	2x12s	4	6	6	7	5	7	4	6
30'	2x8s	4	5	5	5	4	5	3	5	5	32'			2x12s	4	6	6	7	5	7	4	6
	2x10s	3	3	3	4	3	4	2	3	4		32'		2x12s	4	6	6	7	5	7	4	6
	2x12s	2	2	3	3	2	3	2	3	3			32'	2x12s	4	6	6	7	5	7	4	6
32'	2x8s	4	5	5	6	4	6	4	5	6	32'			2x12s	4	6	6	7	5	7	4	6
	2x10s	3	3	4	4	3	4	3	3	4		32'		2x12s	4	6	6	7	5	7	4	6
	2x12s	2	3	3	3	2	3	2	3	3			32'	2x12s	4	6	6	7	5	7	4	6



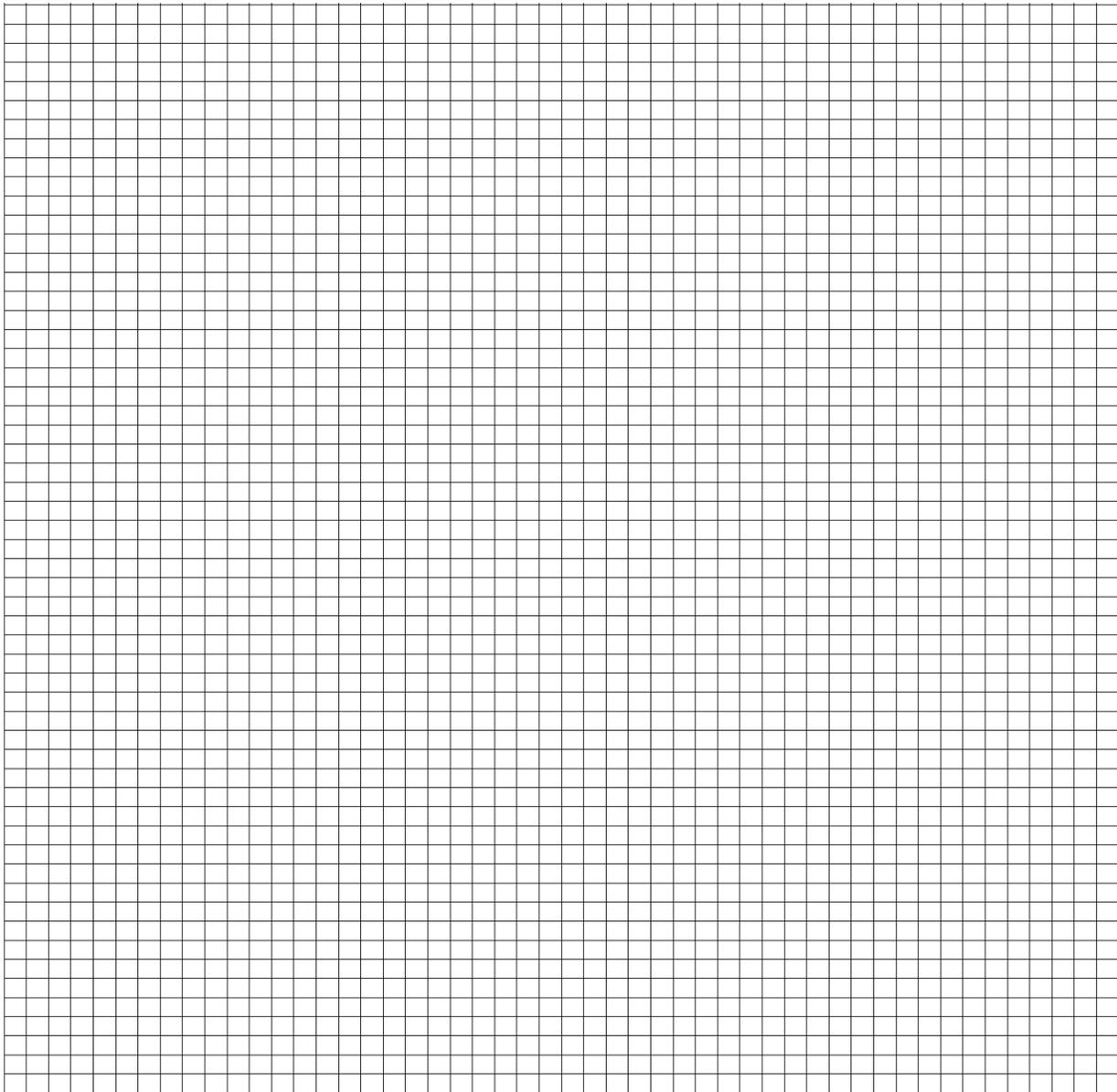
LP – LVL Technical Guide – As example – provide LVL specification information as needed.

Span	Beam Width	Span Carried By Beam											
		20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'	
6'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
8'-0"	3-1/2"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"
9'-6"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
10'-0"	3-1/2"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	9-1/2"
	5-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	7-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"
12'-0"	3-1/2"	9-1/4"	9-1/2"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-7/8"
	5-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/4"	9-1/2"	11-1/4"	11-1/4"	11-1/4"	11-1/4"
14'-0"	3-1/2"	11-1/4"	11-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"
	5-1/4"	9-1/2"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-1/4"	11-7/8"	11-7/8"
16'-0"	3-1/2"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"
	5-1/4"	11-1/4"	11-1/4"	11-7/8"	11-7/8"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"
16'-6"	3-1/2"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"	-	-
	5-1/4"	11-1/4"	11-7/8"	11-7/8"	14"	14"	14"	14"	14"	14"	14"	14"	14"
18'-0"	3-1/2"	14"	16"	16"	16"	16"	16"	16"	16"	18"	18"	18"	18"
	5-1/4"	14"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"
18'-6"	3-1/2"	16"	16"	16"	16"	16"	18"	18"	18"	-	-	-	-
	5-1/4"	14"	14"	14"	14"	14"	14"	14"	16"	16"	16"	16"	16"
20'-0"	3-1/2"	16"	16"	18"	18"	18"	18"	18"	18"	-	-	-	-
	5-1/4"	14"	14"	16"	16"	16"	16"	16"	16"	16"	16"	18"	18"
22'-0"	3-1/2"	18"	18"	18"	-	-	-	-	-	-	-	-	-
	5-1/4"	16"	16"	16"	16"	18"	18"	18"	18"	18"	18"	18"	-
24'-0"	3-1/2"	-	-	-	-	-	-	-	-	-	-	-	-
	5-1/4"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	-



Site and Floor Plan

(draw to scale, Lincoln County Parcel map [<https://maps.lincolncountysd.org/parcel-browser/>] may also be utilized)



Please show the following in your site plan sketch:

1. Property boundaries with boundary measurements (in linear feet) of all sides of the property.
2. Final setbacks of all existing and proposed structures (in linear feet).
3. Access from public right-of-way to property (i.e. driveways, alleys, etc.)
4. Any Easements and restrictions (City of Lennox, Utility Providers, Others)
5. Post construction drainage patterns.