

## Plan Review Checklist – Attached Garages

**Home Owner/Builders:** The following information is required when submitting an application for a residential building permit and before a building permit is issued. The plan review will not begin until all required information is provided.

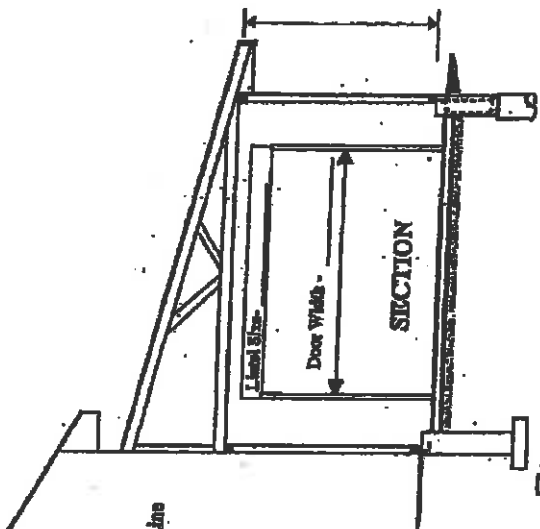
### Required Information:

- 2 sets of Site Plans with the following information
  - Show size and location of proposed attached garage
  - Show size and location of existing buildings on property
  - Show lot dimensions and shape
  - Show distance between buildings and property lines
  - Show North direction arrow
- 2 sets of Attached Garage Layout Drawings with the following information
  - Interior wall location
  - Window sizes and locations
  - Door sizes, location and swing direction
  - Heating unit/system location (if applicable)
- 2 copies of the Attached Garage Checklist properly filled out
  - A professional design is required for the garage foundation if the attached garage is 2 stories or includes any living quarters being constructed above.
  - See Minimum Grade Beam and Pile Requirements for attached garages
- 2 copies of the Building Permit Application properly filled out

**Required On-Site Inspections:** (inspection requirements may change depending on the project type and size)

- Plan Review (Prior to the commencement of any construction)
- Foundation (Prior to pouring concrete on engineered foundations or prior to backfill)
- Framing (Prior to insulating and applying vapour barrier the exterior walls)
- Final (Prior to moving in or occupying the building)

# ATTACHED GARAGE



Indicate the following:

**ROOF:**

- Type of roof stringers \_\_\_\_\_
- Type and thickness of roof sheathing \_\_\_\_\_
- Spacing of roof trusses \_\_\_\_\_
- Slope of roof \_\_\_\_\_
- Width of overhang \_\_\_\_\_

**EXTERIOR WALL:**

- Type of siding \_\_\_\_\_
- Type of Ridge, Paper/Glue/Wrap \_\_\_\_\_
- Type and thickness of wall sheathing \_\_\_\_\_
- Size and spacing of studs \_\_\_\_\_
- Height of wall \_\_\_\_\_
- Type, size and spacing of anchor bolts \_\_\_\_\_

**WALL BETWEEN HOUSE AND GARAGE:**

Wall to be constructed as a vapor tight separation. No operable windows permitted. Construction must resist the passage of gas and exhaust fumes from entering the dwelling.

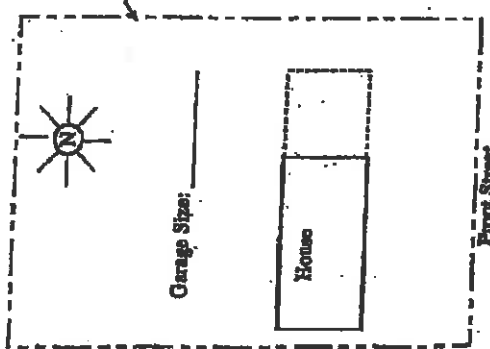
**SLAB:**

- Thickness of slab \_\_\_\_\_
- Type of sub base \_\_\_\_\_
- Sloped to Outdoors
- Construction Joint between house and slab

**DOOR (INTO HOUSE):**

- Weather stripped
- Self-closer
- Deadbolt Lock
- Blocked at lock-height to frame
- Hinges secured to solid wood frame

NOTE: All dust systems cannot be interconnected with other parts of the dwelling unit.



**SITE PLAN**

- Show size and location of proposed garage
- Show distances to side property line
- Show distances to rear property line
- Show lot dimensions and shape of lot
- Show all existing buildings

- Foundation Wall
- Grade Beam & Piles
- Foundation Wall Height \_\_\_\_\_
- Foundation Wall Thickness \_\_\_\_\_
- Footing Size Width \_\_\_\_\_ Thickness \_\_\_\_\_
- Pile Dia. \_\_\_\_\_
- Pile Depth \_\_\_\_\_
- Beam Size W. \_\_\_\_\_ H. \_\_\_\_\_
- Rebar: In Pile \_\_\_\_\_
- In Beam \_\_\_\_\_
- Pile-to-Beam \_\_\_\_\_

Note: The foundation must extend to the same depth or greater than the house foundation.

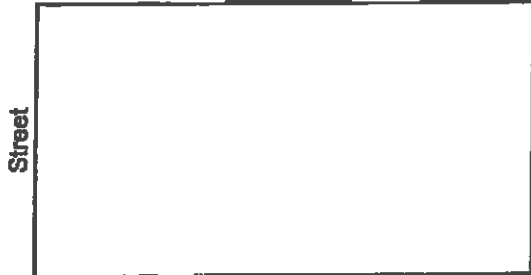
Owner's Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_

Municipality: \_\_\_\_\_

Permit #: \_\_\_\_\_

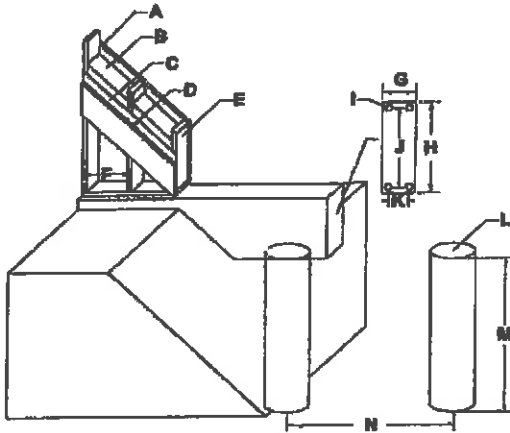
## Attached Garage Checklist

### Site Plan

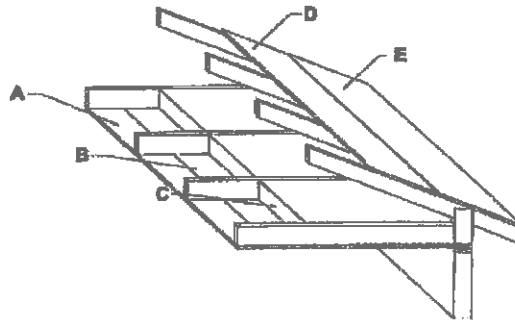


- On Site Plan:**
- Show size and location of proposed attached garage
  - Show distance to side property line
  - Show distance to rear property line
  - Show location on dwelling
  - Show lot dimensions and shape of lot
  - Show all existing buildings
  - Show direction of North
  - Show all windows and doors on existing structures

### Wall System



### Roof System



Wall System	Roof System
A - Outside Sheathing:	A - Interior Finish:
B - Insulation Value:	B - Type of Vapour Barrier:
C - Type of Vapour Barrier:	C - Insulation Value:
D - Interior Finish:	D - Exterior Sheathing:
E - Stud Size	E - Type of Roofing:
F - Stud Spacing	Roof Overhang
G - Grade Beam Thickness:	Garage Door
H - Grade Beam Height:	Door Span
I - Size of Rebar:	Lintel Size
J - Rebar Spacing:	Ply
K - Rebar Spacing:	
L - Pile Diameter:	
M - Pile Depth:	
N - Pile Span:	
Wall Height:	
Vold Form Type and Size:	

I hereby acknowledge that I have read this application and state that the above is correct and agree to comply with all Municipal By-Laws and/or Provincial Laws regulating building.  
 It being expressly understood that the issuing of a permit does not relieve the applicant from complying with all By-Laws, though not called for in the specifications, or shown on plans and/or application submitted.

Applicant (Print Please)	Date
Applicant Signature	Date
Application Received By	Date Received



## **Minimum Grade Beam Requirements (Attached Garages)**

1. Foundations which include piles and grade beams that support any fully finished livable floor space or second storey must be designed in accordance with Part 4 of the National Building Code and sealed by a professional engineer licensed to practice in the Province of Saskatchewan.
2. Foundations which include piles and grade beams that support non-finished floor spaces including attached garages with no livable floor space in or above, attached covered decks, and three season rooms shall meet the minimum specifications described below.

### **Grade Beam Construction**

Grade beams must be a minimum of 200mm by 600mm (8 inches by 24 inches) with 2 – 15M bars top and bottom. Thickened edge slabs are not acceptable as a grade beam without an Engineer's seal. An acceptable void form must be placed under all grade beams.

### **Stirrups**

It is the builder's responsibility to assess the soil conditions to determine the need for stirrups.

### **Void Forms**

Void forms must be placed under all grade beams including extensions under garage door openings.

### **Cutouts in grade beams**

Cutouts in a grade beam cannot occur without adequate structural provisions across the opening. The builder is solely responsible for cutouts where the grade beam is not dropped accordingly. Cutouts shall not exceed 300mm or the grade beam must be dropped accordingly. Where cutouts occur it is the builder's responsibility to ensure the top and bottom bars extend across the openings with sufficient overlap. Piles placed under cutouts must extend a minimum of 4 meters deep. A minimum of 1-15M bar must extend from the top bars in the grade beam to the full depth of the piles. Where possible piles must be placed at the edge of all cutouts unless designed by an engineer.

### **Pile Construction**

Pile sizing and spacing must be designed for the anticipated loads. The following forms a general guide that will be accepted without an engineer's seal where used in accordance with item 2. above.

1. Small loads from 1 – vehicle attached garages, covered decks and/or 3 season rooms  
200mm by 2400mm @ 2400mm on center concrete piles may be used to support roof spans up to 4.8 meters or floor joists spans up to 2.4 meters. Piles that support floor joists and roof loads must comply with 3) below.
2. Moderate loads from 2 – vehicle attached garages, covered decks and/or 3 season rooms  
250mm by 3000mm piles @ 2400mm on center may be used to support roof spans up to 9.8 meters or floor joists up to 4.9 meters.
3. Combination roof and floor loads – covered decks and/or 3 season rooms  
250mm by 3000mm piles @ 2400mm on center may be used to support floor joists and roof spans up to 3 meters. The span may be increased up to spans noted in 2. above, by reducing the spacing of the piles and/or increasing the length of the piles proportionally.

All piles must be reinforced with a minimum of 1-15M bar full depth of the pile extending to the top bars of the grade beam.

### **Piles adjacent to a foundation wall**

Piles must also be placed within 0.9 meters of a concrete foundation wall. This pile should be a minimum 4 meters deep when within 1 meter of a recent excavation. See below for piles in excavated area.

### **Piles within 1 meter of a service trench**

All piles located within 1 meter of a service trench are required to be a minimum of 4 meters deep. It is the builder's responsibility to ensure compliance.

### **Piles placed in excavated area**

Piles must be extended for the depth of the excavation plus the minimum depth required under "Pile Construction", above. This is the builder's responsibility to ensure compliance.

## Garage Sizing Tables

### Header sizes over garage doors in supporting walls

Total Truss Length (ft)	Door size 9'	Door size 10'	Door size 12'	Door size 14'	Door size 16'	Door size 18'
16	3 - 2" x 8"	3 - 2" x 8"	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 10"	3 - 2" x 12"
18	3 - 2" x 8"	3 - 2" x 8"	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 10"	4 - 2" x 12"
20	3 - 2" x 8"	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 10"	3 - 2" x 12"	4 - 2" x 12"
22	3 - 2" x 8"	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 12"	3 - 2" x 12"	4 - 2" x 12"
24	3 - 2" x 8"	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 12"	4 - 2" x 12"	5 - 2" x 12"
26	3 - 2" x 8"	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 12"	4 - 2" x 12"	5 - 2" x 12"
28	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 10"	4 - 2" x 12"	4 - 2" x 12"	5 - 2" x 12"
30	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 12"	4 - 2" x 12"	5 - 2" x 12"	*
32	3 - 2" x 8"	3 - 2" x 10"	3 - 2" x 12"	4 - 2" x 12"	5 - 2" x 12"	"
34	3 - 2" x 10"	3 - 2" x 10"	3 - 2" x 12"	4 - 2" x 12"	5 - 2" x 12"	"
36	3 - 2" x 10"	3 - 2" x 10"	3 - 2" x 12"	4 - 2" x 12"	5 - 2" x 12"	"
38	3 - 2" x 10"	3 - 2" x 10"	4 - 2" x 12"	5 - 2" x 12"	5 - 2" x 12"	"
40	3 - 2" x 10"	3 - 2" x 12"	4 - 2" x 12"	5 - 2" x 12"	5 - 2" x 12"	"
					*	*

\* Steel beam, LSL gluelam, girder truss, etc

### Equivalents

- 3 - 2" x 8" = 2 - 2" x 10"
- 5 - 2" x 8" = 3 - 2" x 10"
- 4 - 2" x 10" = 3 - 2" x 12"
- 5 - 2" x 10" = 4 - 2" x 12"

### For header on 14' - 16' door in a non supporting wall

- 2 - 2" x 12" could be used if the end grains are reversed; but due to possible twisting then it is recommended that 3 - 2" x 10" are used to counter the twisting.

### Lintels over garage door/window in supporting wall

Truss Length	3' 6" opening	6' - 8' opening
Up to 24'	2 - 2" x 6"	2 - 2" x 8"
24' - 36'	2 - 2" x 8"	2 - 2" x 10"
36' - 40'	2 - 2" x 10"	2 - 2" x 12"