

# Building a Deck

## Information Guide



The intention of this guide is to help homeowners and builders have a clear guide on the requirements for permits related to building a deck. This information is not meant to be an exhaustive list and there may be other information required.

### When is a permit required?

- When the building area of the deck is greater than 10 square meters (108 sf),
- If the deck is attached to another structure, or
- If the deck is elevated more than 23 1/2" from the walking surface to grade.

### What is needed for a permit to be issued?

- A completed application form, available on the City website,
- Site plan indicating the zoning information, locations and dimensions of the deck in relation to existing buildings and property lines. Indicate lot area and amount of property covered by buildings/deck (lot coverage).
- 2 sets of construction drawings that include plan view, elevations, section with related details, see examples on the next two pages. As well if roof trusses are to be used provide engineered sealed designs with application.

### What does it cost?

- Currently the fee for a deck is \$112.37. Payment is required at time of application and we accept cash, debit, and credit cards for payment.

### How long does it take to get a permit?

- The legislated timeframe for this type of permit is 10 working days. Depending on volume of permits and quality of drawings permits for decks are generally issued within 5 working days.

### Zoning Information:

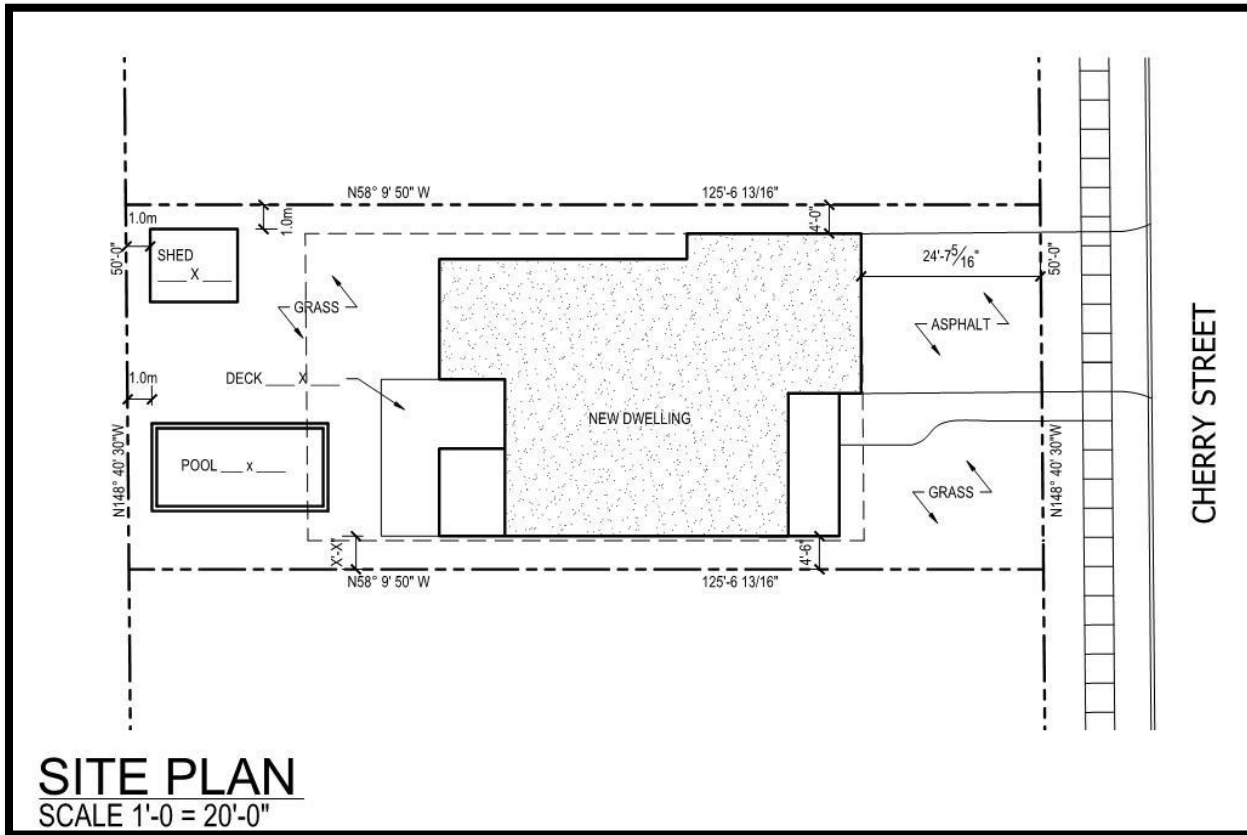
The City of Stratford online interactive GIS map will allow you to identify the zoning for your property. <https://maps.stratford.ca/public/>

Also available is our Zoning By-Law No. 201-2000 which contains information you will need to reference for setback and lot coverage requirements.

[https://www.stratfordcanada.ca/en/insidacityhall/resources/InfrastructureDevelopmentServices/Planning/Planning\\_Services/Zoning-By-Law-for-web.pdf](https://www.stratfordcanada.ca/en/insidacityhall/resources/InfrastructureDevelopmentServices/Planning/Planning_Services/Zoning-By-Law-for-web.pdf)

If you have any questions on zoning one of the City Planners would be happy to assist you in your questions.

A site plan identifies building and other features in relation to property boundaries. The site plan should show the existing house, and any other structures as well as any proposed additions or new structures. Below is a sample of a Site Plan.



Contact us:

Building Services  
8:30am – 4:30pm Monday – Friday

82 Erie Street, 2<sup>nd</sup> Floor  
Stratford, ON N5A 2M4

519-271-0250 x345

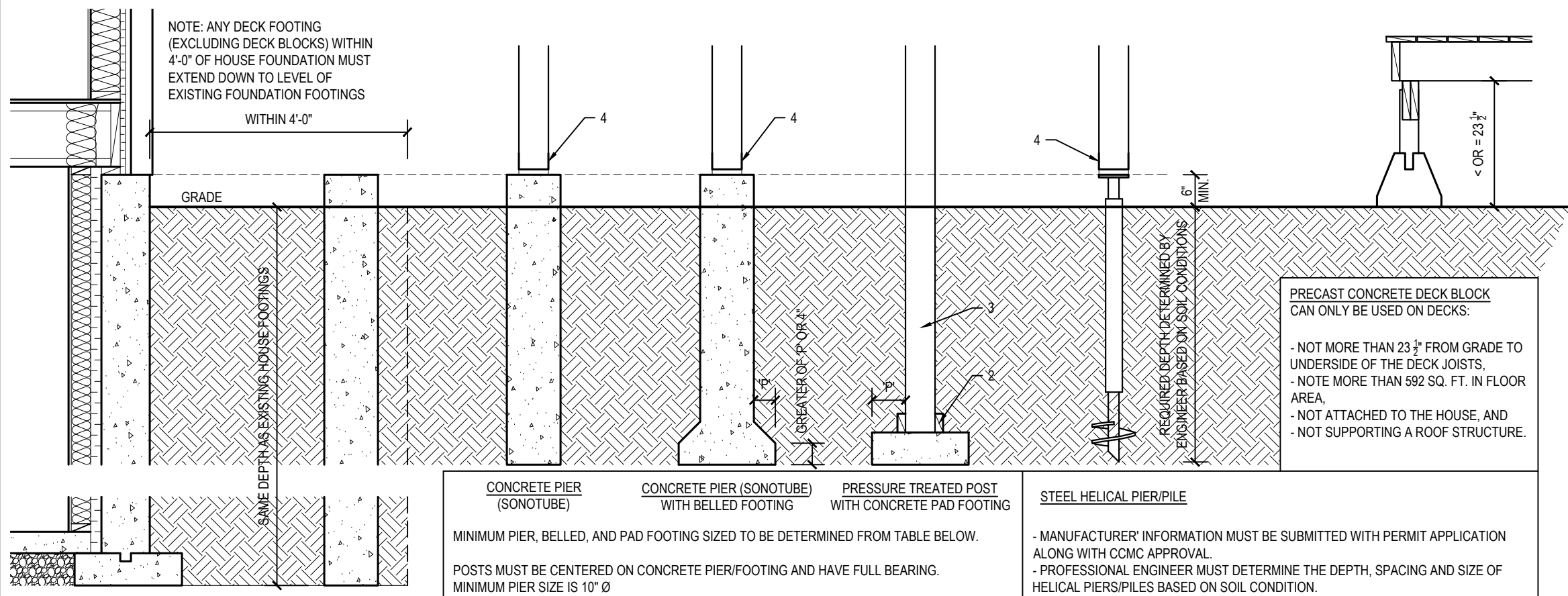
[building@stratford.ca](mailto:building@stratford.ca)  
[www.stratford.ca](http://www.stratford.ca)

Other Helpful Contacts:

Ontario One Call:  
[www.on1call.com](http://www.on1call.com)  
1-800-400-2255

Electrical Safety Authority:  
[www.esasafe.com](http://www.esasafe.com)  
1-877-372-7233

Upper Thames River Conservation Authority:  
[www.thamesriver.on.ca](http://www.thamesriver.on.ca)  
519-451-2255



**CONCRETE PIER (SONOTUBE)**  
MINIMUM PIER, BELLED, AND PAD FOOTING SIZED TO BE DETERMINED FROM TABLE BELOW.  
POSTS MUST BE CENTERED ON CONCRETE PIER/FOOTING AND HAVE FULL BEARING.  
MINIMUM PIER SIZE IS 10" Ø

**CONCRETE PIER (SONOTUBE) WITH BELLED FOOTING**

**PRESSURE TREATED POST WITH CONCRETE PAD FOOTING**

**STEEL HELICAL PIER/PILE**  
- MANUFACTURER' INFORMATION MUST BE SUBMITTED WITH PERMIT APPLICATION ALONG WITH CCMC APPROVAL.  
- PROFESSIONAL ENGINEER MUST DETERMINE THE DEPTH, SPACING AND SIZE OF HELICAL PIERS/PILES BASED ON SOIL CONDITION.

**FOOTING NOTES:**

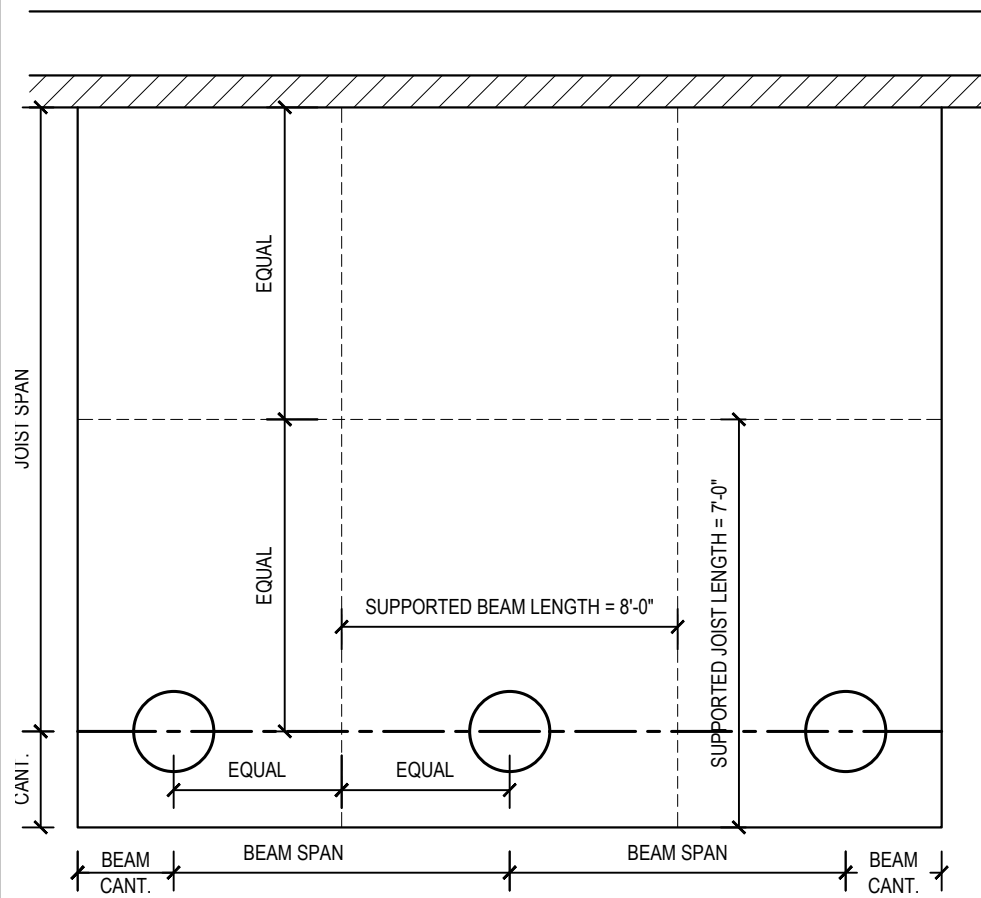
1. MINIMUM DEPTH OF BELLED/PAD FOOTING IS THE GREATER OF 4" OR THE PROJECTION 'P' OF THE BELLED/PAD FOOTING BEYOND THE POST/PIER.
2. POST BEARING ON PAD FOOTING REQUIRES 2-2x4 P.T. CLEATS FASTENED TO OPPOSITE SIDES OF POST WITH MIN. 3-3/4" GALVANIZED NAILS TO RESIST UPLIFT. CLEATS TO EXTEND MIN. 2" BEYOND POST ON EACH SIDE.
3. BURIED PRESSURE TREATED POST MUST BE RATED FOR GROUND CONTACT.
4. POST SADDLE ANCHORED TO CONCRETE OR STEEL HELICAL PIER/PILE.
5. DECKS SUPPORTING ROOF OR HOT TUB LOADING TO BE DESIGNED BY PROFESSIONALS.

TRUE NORTH CONSTRUCTION NORTH

**GENERAL NOTES:**

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2. DO NOT SCALE DRAWINGS.
3. ALL DIMENSIONS TO BE SITE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. NO INFORMATION ON THESE DRAWINGS SUPERCEDES THE REQUIREMENTS OF THE GOVERNING CODES INCLUDING THE ONTARIO BUILDING CODE.
5. DIMENSIONS AND SPECIFICATIONS OF ROOF TRUSSES AND ENGINEERED FLOOR SYSTEMS ARE TO BE DESIGNED BY A PROFESSIONAL ENGINEER OR OTHER APPROVED AUTHORITY.
6. NOTIFY THE DESIGNER OF ANY CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE DESIGNER DOES NOT ASSUME ANY LIABILITY FOR ERRORS OR OMISSIONS ON THESE DOCUMENTS UNLESS NOTIFIED IN WRITING PRIOR TO COMMENCEMENT OF CONSTRUCTION.

**DECK FOOTING OPTIONS**  
SCALE 1/2" = 1'-0"



**REQUIRED DECK FOOTING CAPACITY**  
FOOTING LOAD = SUPPORTED BEAM LENGTH x SUPPORTED JOIST LENGTH x 40 LBS/SQ FT (DECK LOAD)

USE FOOTING/PIER SIZING TABLE BELOW TO DETERMINE MINIMUM FOOTING SIZE BASED ON FOOTING LOAD.

**EXAMPLE (MIDDLE FOOTING):**  
SUPPORTED BEAM LENGTH = 8'-0"  
SUPPORTED JOIST LENGTH = 7'-0"  
FOOTING LOAD = 8 x 7 x 40 = 2240 LBS  
THEREFORE MIDDLE FOOTING WOULD REQUIRE 16" Ø OR A 14" SQUARE FOOTING.

**FOOTING / PIER SIZING TABLE**

MINIMUM FOOTING SIZE	MAX. FOOTING CAPACITY	
	ROUND (DIA.)	SQUARE
10"	1139 LBS	1450 LBS
12"	1640 LBS	2089 LBS
14"	2233 LBS	2843 LBS
16"	2916 LBS	3713 LBS
18"	3691 LBS	4699 LBS

NOTE: MAX. FOOTING CAPACITY BASED ON A SOIL BEARING CAPACITY OF 2000 LBS/SQ FT

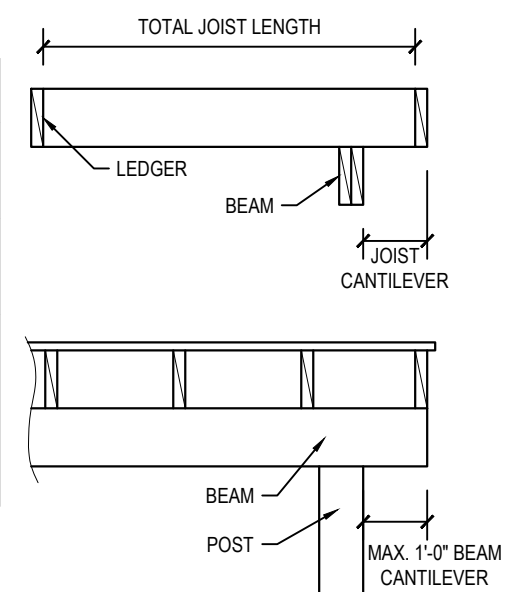
**FLOOR JOIST SPAN TABLE**

JOIST SIZE	SPACING (O.C.)	MAX. JOIST SPAN	MAX. JOIST CANTILEVER
2x6	12"	10'-4"	NOT PERMITTED
	16"	9'-4"	
	24"	8'-2"	
2x8	12"	12'-5"	LESSER OF 16" OR 1/6 OF TOTAL JOIST LENGTH
	16"	11'-9"	
	24"	10'-9"	
2x10	12"	14'-6"	LESSER OF 24" OR 1/6 OF TOTAL JOIST LENGTH
	16"	13'-9"	
	24"	12'-10"	
2x12	12"	16'-4"	LESSER OF 24" OR 1/6 OF TOTAL JOIST LENGTH
	16"	15'-5"	
	24"	14'-6"	

NOTES TO TABLE: 2x6 JOISTS MAY ONLY BE USED WHERE DECK IS LESS THAN 23 1/2" FROM GRADE WHERE NO GUARD IS TO BE PROVIDED. GUARDS REQUIRE MIN. 2x8 JOISTS.

**BEAM SPAN TABLE**

SUPPORTED JOIST LENGTH	MAX. 2 - PLY BEAM SPAN				MAX. 3 - PLY BEAM SPAN			
	2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
4'-0"	8'-0"	10'-4"	12'-7"	14'-7"	9'-2"	12'-7"	16'-1"	19'-7"
6'-0"	6'-10"	8'-4"	10'-4"	11'-9"	8'-4"	11'-0"	14'-1"	17'-1"
8'-0"	5'-11"	7'-2"	8'-10"	10'-3"	7'-7"	10'-0"	11'-10"	14'-1"
10'-0"	5'-3"	6'-5"	7'-10"	9'-2"	7'-1"	9'-4"	10'-10"	12'-7"
12'-0"	4'-10"	5'-11"	7'-2"	8'-4"	6'-8"	8'-7"	9'-11"	11'-6"
14'-0"	4'-6"	5'-5"	6'-8"	7'-9"	6'-4"	7'-11"	9'-2"	10'-8"



**CALCULATING FOOTING SUPPORT AREA & MIN. FOOTING SIZE**  
N.T.S.

**STRUCTURAL SIZING TABLES**  
N.T.S.

A	ISSUED FOR PERMIT	03/04/2019
NO.	REVISION	DATE



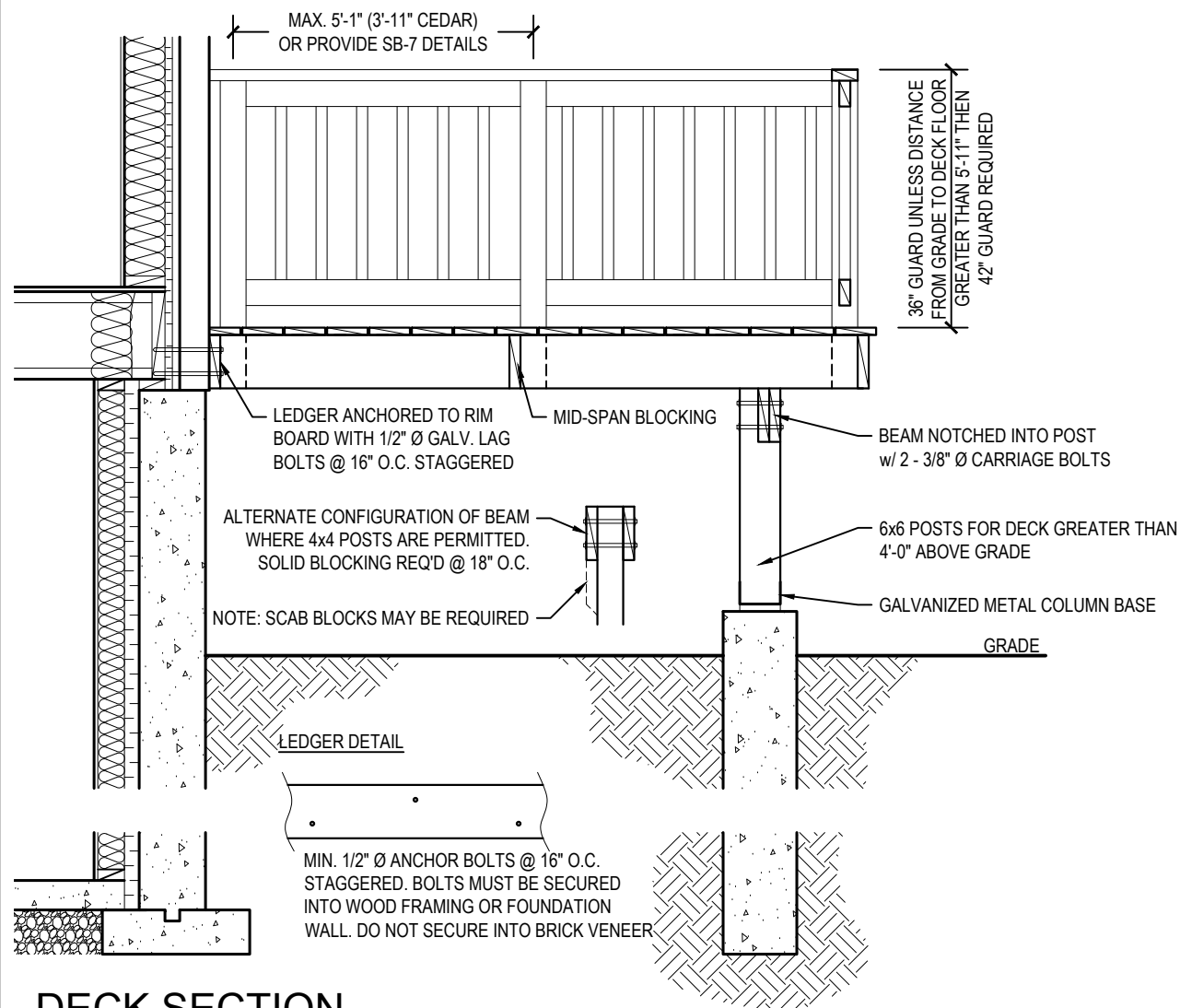
CLIENT: CITY OF STRATFORD

PROJECT: DECK

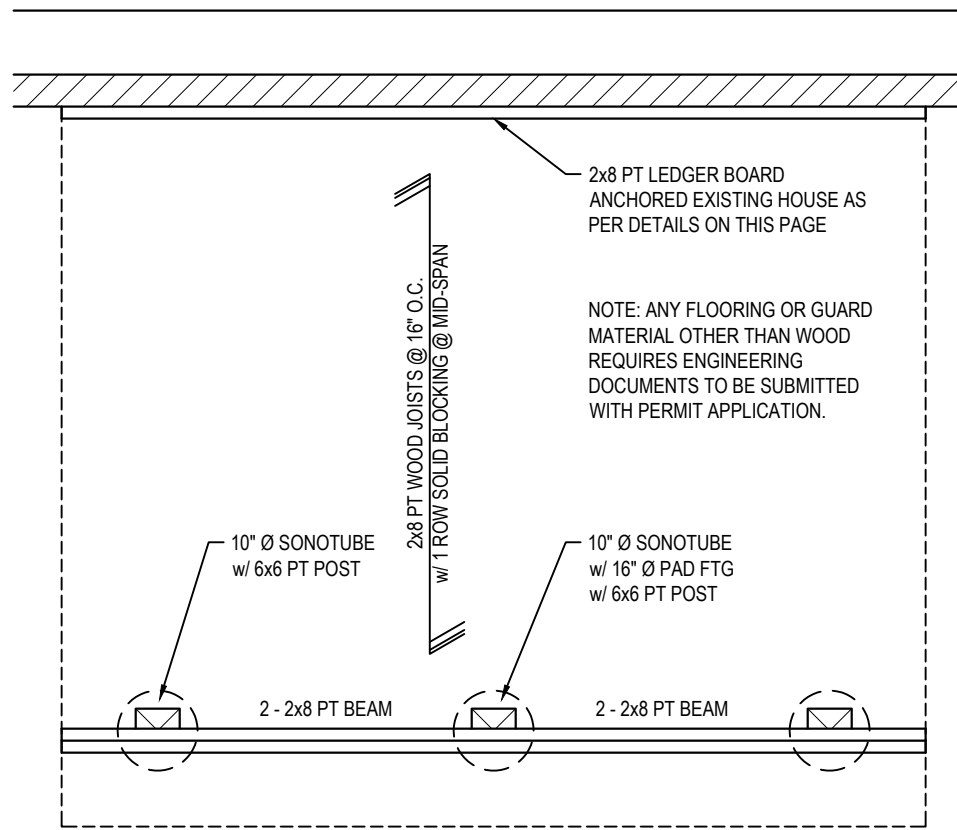
LOCATION: SAMPLE STRATFORD, ON

DRAWING: **FOOTING DESIGNS**

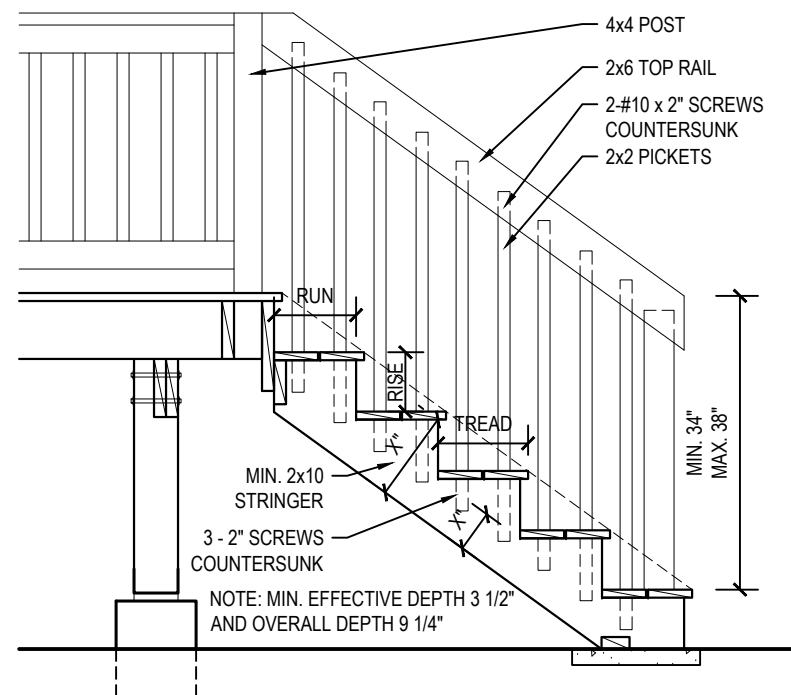
DRAWN: COS	PROJECT #: 2019-003
SCALE: AS NOTED	<b>D1</b>
DATE: APRIL, 2019	



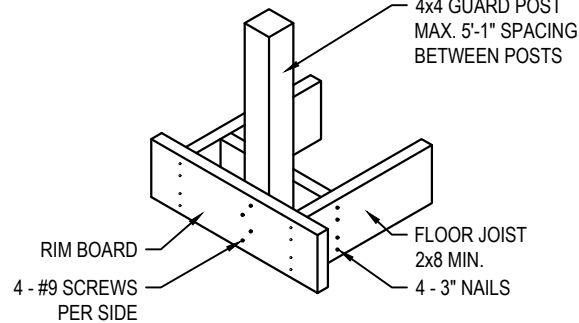
**DECK SECTION**  
SCALE 1/2" = 1'-0"



**DECK STRUCTURAL PLAN**  
SCALE 1/2" = 1'-0"



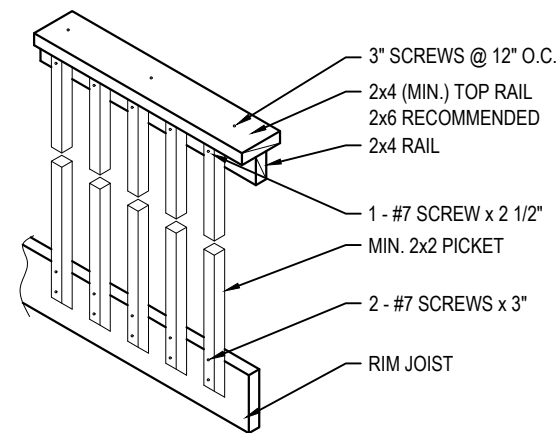
**STAIR SECTION**  
SCALE 1/2" = 1'-0"



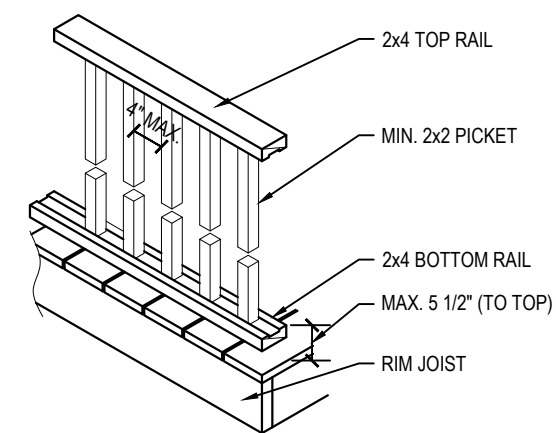
**GUARD POST DETAIL**  
SCALE 1/2" = 1'-0"

STAIR DIMENSIONS		
TYPE	MAXIMUM	MINIMUM
RISE	7 7/8"	4 7/8"
RUN	14"	8 1/4"
TREAD	14"	9 1/4"

NOTE: RISE AND RUN TO BE UNIFORM FOR EACH FLIGHT OF STAIRS.



**GUARD DETAIL (OPT. A)**  
SCALE 1/2" = 1'-0"



**GUARD DETAIL (OPT. B)**  
SCALE 1/2" = 1'-0"

**GUARD NOTES:**  
- GUARDS ARE REQUIRED WHEN THE FINISHED DECK FLOOR IS 23 1/2" OR MORE ABOVE GRADE.  
- AN ENGINEERED STAMPED DETAIL IS REQUIRED FOR ANY GUARD SYSTEM THAT INCORPORATES ANY COMPONENT THAT IS NOT WOOD CONFORMING TO SB-7.

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A	ISSUED FOR PERMIT	03/04/2019
NO.	REVISION	DATE



CLIENT:  
CITY OF STRATFORD

PROJECT:  
DECK

LOCATION:  
SAMPLE STRATFORD, ON

DRAWING:  
**SECTION, DETAILS**

DRAWN:  
COS

PROJECT #:  
2019-003

SCALE:  
AS NOTED

DATE:  
APRIL, 2019

**D2**